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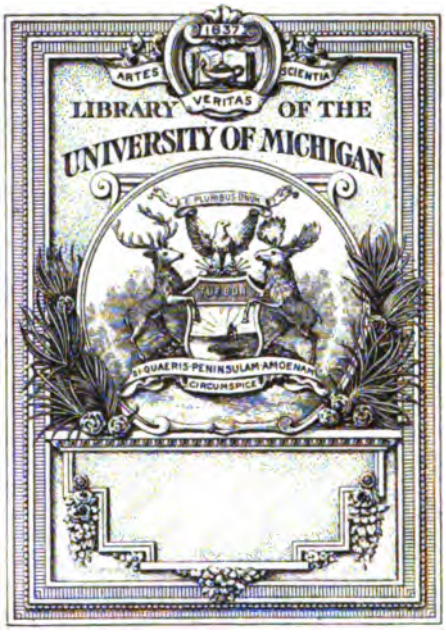
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## A Weekly Journal of Medicine and Surgery.

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EDITED BY

GEORGE F. SHRADY, A.M., M.D.

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## Volume 15.

JANUARY 4, 1879.—JUNE 28, 1879.

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NEW YORK:
WILLIAM WOOD & COMPANY,
27 GREAT JONES STREET.

TROW'S
PRINTING AND BOOKBINDING COMPANY,
205–213 *East 12th St.*,
NEW YORK.

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# THE MEDICAL RECORD.

VOL. XV. JANUARY 4, 1879. No. 1.

## Original Lectures.

### LECTURES ON CLUB-FOOT.

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK (SPECIAL COURSE).

BY JOS. C. HUTCHISON, M.D.,

VISITING SURGEON TO THE BROOKLYN CITY HOSPITAL; SURGEON-IN-CHIEF TO THE BROOKLYN ORTHOPEDIC INFIRMARY; CONSULTING SURGEON TO THE KINGS COUNTY, ST. PETER'S AND ST. JOHN'S HOSPITALS, ETC.

#### LECTURE VI.

TALIPES EQUINUS—PATHOLOGICAL ANATOMY—CAUSES—TREATMENT—EQUINO-VARUS AND EQUINO-VALGUS—TREATMENT.

TO-DAY, gentlemen, we will consider the simplest and most frequent form of club-foot, *talipes equinus*, or *horse-foot*, so called from its supposed resemblance to the foot of the horse.

In the opinion of all authors, simple equinus is rarely congenital, but we find at birth combinations of this distortion with other varieties, such as equinus varus and equinus valgus. "I have met," says Mr. Tamplin, "with pure talipes equinus congenitus." It usually occurs in infants under five years of age, but it may commence much later in life.

In well-marked cases of talipes equinus there is complete elevation of the heel, unaccompanied by lateral distortion, either inward or outward, increase in the concavity of the longitudinal arch, producing shortening of the foot, and a corresponding prominence of the head of the astragalus on the dorsum. The patient in walking rests entirely on the heads of the metatarsal bones, which become separated from each other in consequence of the pressure of the weight of the body, so that the anterior part of the foot is increased in width.

These appearances are well shown in the cast which I hold in my hand (Fig. 20), which represents a classical case of talipes equinus in the adult. There are, however, various degrees of the deformity, depending on the amount of flexion in the tibio-tarsal articulation. We may have simply *rectangular contraction of the tendo Achillis*, a condition in which the heel touches the ground and the movements of the ankle-joint are free, except when the patient attempts to raise the foot beyond the right angle when the leg is extended, giving rise to great inconvenience in walking; or the deformity may involve the utmost possible elevation of the os calcis.

The toes are usually in a condition of forced extension—drawn up at right angles to the metatarsal bones, as you see in this cast (Fig. 21). This indicates that the anterior muscles of the foot and leg retain their power; and when they are affected with spasm, the toes are flexed upon themselves, as seen in this cast (Fig. 22).

In exceptional cases, all the anterior muscles are completely paralyzed, and the ligaments are greatly relaxed. The foot then becomes bent upon itself, so

FIG. 20.

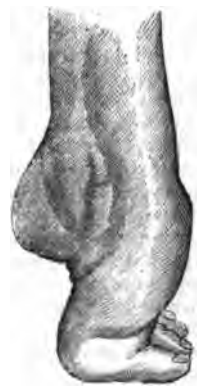

FIG. 21.

that the dorsal surface rests upon the ground. This condition is well represented by the cast (Fig. 23).

When we study the *pathological anatomy* of this deformity, we find that the *bones* have undergone very little change in form. This is true even in cases which, beginning in childhood, have existed for many years. The *position* of the bones, however, is materially altered. The tuberosity of the os calcis is

FIG. 22. FIG. 23.

raised by the contraction of the gastrocnemius and soleus muscles, sometimes to such a degree that the upper surface of this bone is brought in contact with the posterior surface of the tibia. The degree of elevation of the heel depends not merely on the amount of contraction of the muscles of the calf, but also on the amount of flexion of the anterior or the posterior part of the foot at the transverse tarsal joint.

The degree of elevation of the heel is often more apparent than real. The elevated position of the os calcis causes the *astragalus* to project downward and forward, and its head presents prominently on the dorsum of the foot (Fig. 20).

The metatarsal bones approximate to a vertical position, and, in old and severe cases, their anterior ex-

# TRANSFUSION OF MILK versus TRANSFUSION OF BLOOD.

CLINICAL LECTURE DELIVERED AT CHARITY HOSPITAL, NOVEMBER 23, 1878.

BY JOSEPH W. HOWE, M.D.,

CLINICAL PROFESSOR OF SURGERY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK.

## LECTURE III.

(Reported for THE MEDICAL RECORD.)

REMARKABLE IMPROVEMENT FROM TRANSFUSION OF BLOOD IN SYPHILIS AND PHTHISIS—REPETITION OF OPERATION IN SYPHILIS AND PHTHISIS—RESULTS OF SIX OPERATIONS WITH COLIN'S INSTRUMENT AND DEFIBRINATED BLOOD—RESULTS OF ONE OPERATION WITH AVELING'S INSTRUMENT—TRANSFUSION WITH A GLASS FUNNEL AND RUBBER TUBE—IS TRANSFUSION OF MILK A JUSTIFIABLE OPERATION WHEN BLOOD CAN BE OBTAINED?

GENTLEMEN:—Last Saturday those two patients were brought to this amphitheatre in a very low condition. One was suffering from syphilis and phthisis; the other had phthisis in the third stage. They were both transfused with blood. To-day they are able to walk to the amphitheatre without assistance. The patient with syphilis was transfused with undefibrinated blood mixed with ammonia. Half an hour after the operation he was seized with a chill, which lasted fifteen minutes. His temperature during the chill was 100½° F., and his pulse was 120 per minute. Two hours subsequently his pulse ran up to 158, and his temperature increased to 103°, and he expectorated a small quantity of bloody mucus. At 10 P.M. the same evening his pulse went down to 116, and the temperature decreased to 100½°. At 6 P.M. the day following, his pulse was only 88, and his temperature 99½°. On the third day after the operation the syphilitic ulcers on the patient's limbs showed signs of rapid healing, and on the fifth day they were covered with a thin layer of new cicatricial tissue. The pigmentation of the skin has disappeared in many places. The patient's appetite is better, and he feels stronger in every way. The remarkably sudden changes in his condition can only be attributed to the transfusion of blood. No medicine that I know of would produce them. Indeed, all the medicines he has been taking for the past six months have failed to benefit him.

The patient with phthisis whom I transfused with defibrinated blood by means of Colin's instrument, has had no bad symptoms whatever. There was no chill as in the previous case, nor was there any increase in the temperature or pulse. His temperature has not been above 99° F., and the pulse has averaged 90 beats per minute. It is now much stronger and fuller than before the operation. He says he feels strengthened in every way.

Now, I do not expect that the remarkable improvement which has taken place in these two cases will be kept up, unless transfusion is repeatedly performed. Both of them are afflicted with serious organic disease. Their blood-making and assimilating organs are working feebly, and furnish but little material to sustain their failing strength, and unless new life is given them by the introduction of fresh blood, the delicate machinery must soon cease working. To insure a successful issue, these patients should have the transfusion repeated once a week for the next six weeks. That is the only way that the fullest benefit can be derived from the operation. I doubt very much whether they would consent to the necessary number of operations. They are willing to have transfusion performed once more. The syphilitic patient, however, wishes a respite of another week before it is repeated. The phthisical patient is willing to have it done at once.

I will defibrinate the blood as before, by whipping it for two or three minutes with a glass rod, straining it through linen, then whipping it again, and finally straining it through a piece of boiled satin into a glass dish containing a solution of ammonia. I was formerly of the opinion that, in the process of defibrination, the globular elements were diminished to such an extent as to impair the restorative qualities of the injected blood. Further investigation has convinced me that such is not the case, and you have seen here that as much improvement has followed the use of defibrinated blood as has occurred when the blood was undefibrinated.

The opening made last week in the left basilic vein has not yet healed. I will therefore open the vein in the corresponding arm and introduce the closed canula as before. The bowl of the instrument is now filled with blood and the tube attached to the canula in the arm.

Injection commenced; Dr. Stein noting the changes in the pulse.

Dr. Stein: The pulse is 84 and regular.

Prof. Howe: One cylinderful has been injected. How do you feel?

Patient: All right.

Dr. Stein: There is no change in the pulse.

Prof. Howe: There is now nearly two ounces of blood in. Do you feel any worse?

Patient: I have no bad feeling, except where the cut was made in my arm.

Dr. Stein: The pulse is not so frequent.

Prof. Howe: The cylinder of the instrument holds a little over half an ounce. I have thrown in two more, which makes over three ounces of blood added to the patient's circulation. How do you feel now?

Patient: I feel all right.

Dr. Stein: Pulse is stronger, and a little more rapid—88 per minute.

Prof. Howe: I have injected another ounce. The patient's respiratory movements are somewhat quicker. Have you any pain in your chest?

Patient: None whatever.

Prof. Howe: Have you any pain in your head, or any dizziness?

Patient: No sir; I feel all right.

Dr. Stein: The pulse is slower and quite regular.

Prof. Howe: He has now four ounces and a half of fresh blood. There have been no unfavorable symptoms in any stage or form. Can you get up without assistance?

Patient: Certainly I can.

Prof. Howe: All the changes following this operation will be carefully noted as before, and the results exhibited at our next meeting.

We have here another patient in the last stages of phthisis. She is twenty-four years old, and was perfectly well up to within three years of her admission to this hospital. She then contracted a severe cold, which settled on her lungs, and produced chronic inflammation at the apices. The lung tissue is breaking down rapidly. On the right side there is a cavity, and the whole lung seems to be involved in the destructive process. She is, as you see, very anæmic and emaciated. Her pulse is 110, and very feeble. Her temperature varies from 99° to 102°. To-day it is at the latter figure.

I will now show you the operation of transfusion with Aveling's instrument. This is a simple and comparatively cheap instrument. It consists of a rubber bulb, with a tube running off from each side. To the extremity of each tube is attached a silver canula—one with a bevel point and the other with a round point. The instrument is prepared for the operation by placing it in a basin of warm water, and alternately compressing and relaxing the bulb, until all the air is driven out and water drawn in to fill its place. The stop-cocks are then turned to retain the water in the tube. Having everything ready, I now distend the veins in the donor's arm by tying a bandage above the elbow and pinch up the integument over the median basilic vein, and incise it. Placing my thumb and forefinger at each end of the incision over the vein, I open the vessel a quarter of an inch. The canula, with the round extremity, is then passed into the vein from above downward, and held by the thumb and forefinger of an assistant. The vein in the patient's arm is opened in a similar manner, and the bevelled canula introduced. Now the bulb and tubes contain nothing but water. I compress the tube between the bulb and the arm of the donor, and then compressing the bulb, force the water into the vein of the patient. Before I relax my pressure on the bulb the tube near the arm of the patient is compressed. The bulb is then allowed to expand, and as it does so, the blood is drawn into it from the veins of the donor. When the bulb is filled with blood the same manœuvres are gone through with, until the necessary amount of blood is injected.

Now I have emptied the bulb nine times, and the tube has become clogged, so that no more can be injected. The bulb holds two drachms; so the patient has received sixteen drachms of blood and two drachms of water, scarcely enough to bring about any marked improvement in the patient. There have been no bad symptoms whatever during the injection, and I don't think any clots entered with the last portions of blood.

[The remainder of the hour was occupied by Prof. Howe in excising the shoulder joint of a patient suffering from long-standing arthritis.]

Saturday, Nov. 30th.—Michael Murphy, the patient with syphilis and phthisis, who was transfused with undefibrinated blood two weeks ago, was again presented. During the interval he had had a severe hemorrhage from the lungs, which, however, did not seem to weaken him. The operation of transfusion was repeated with Colin's instrument. Defibrinated blood, mixed with ammonia, was injected without a single unpleasant symptom developing either during or after the operation.

Wm. B. Mulcahy, æt. forty-eight, was next examined. He was suffering from tertiary syphilis and phthisis. Both lungs were extensively diseased. The liver was enlarged from waxy deposit. There was fluid in the abdominal cavity. The patient also suffered from profuse diarrhœa, which could not be controlled by medicines. He was exceedingly feeble, and unable to help himself in any way. Four ounces of undefibrinated blood were injected by means of Colin's instrument. Dr. Frankel, who noted the changes in the pulse, reported no unfavorable change during the operation.

H. B., æt. twenty-seven, was admitted to Charity Hospital March 19th, suffering from tertiary syphilis and phthisis. She was sinking rapidly when first examined, and there was every evidence that death would soon terminate her sufferings. Transfusion was performed Thursday, Dec. 5th. The instrument used was a glass funnel, to which a rubber tube and canula had been attached. Nearly four ounces of defibrinated blood passed into the circulation. The pulse at the commencement went up to 160, but afterward fell to 130; temperature, 102°. No other change was noticed during the operation.

On Dec. 6th her pulse went down to 103; temperature fell to 99° F.

Dec. 11th she was in much better condition than before the operation, and is desirous of having it repeated.

On Dec. 11th, C. S., in a dying condition from syphilis and phthisis, was transfused with defibrinated blood by means of Colin's instrument. She was insensible when the operation was performed. Her pulse varied from 140 to 180, and was often imperceptible. Five ounces and a half of blood were injected without any further development of dangerous symptoms. A few minutes after the operation the pulse went down to 126, and the respiratory movements became more regular. The insensibility was also lessened. The improvement, however, did not continue, and death took place the next day, Dec. 12th.

*Recapitulation.*—We have had nine operations for transfusion performed during the past five weeks. All of the patients were suffering from advanced phthisis and syphilis. They were selected from the lowest and worst cases that enter Charity Hospital. They were all supposed to be beyond the reach of ordinary therapeutical measures. The first patient was transfused with milk (three and a half ounces). Symptoms indicating speedy dissolution developed during the operation. These subsequently disappeared, and some improvement in the general condition occurred, and continued for nearly two weeks. The patient did not wish the operation repeated. I could not find another who wished to try the milk. The second case was transfused with undefibrinated blood, mixed with ammonia. The operation was performed with the aspirator, which I had previouly used in twelve cases. Dizziness, dimness of vision, and pain in the chest, with increased rapidity of the pulse, took place during the transfusion. Remarkable improvement followed. The syphilitic ulcers healed over, and strength and appetite returned. Two weeks afterward the operation was repeated on the same patient with Colin's instrument and defibrinated blood. The second operation was characterized by an entire absence of all the unfavorable symptoms which appeared when the aspirator was employed, and was followed by a corresponding progress toward a healthy state.

In the third case transfusion was performed *twice* with Colin's instrument, and defibrinated blood mixed with ammonia injected as in the previous case. No unfavorable symptoms developed during or after the operation. Marked improvement followed each transfusion, and the patient is still in excellent condition.

The fourth case was transfused with Aveling's instrument. Little or no improvement followed, because the quantity of blood injected was too small.

In the fifth case Colin's instrument was used as before on a patient in a moribund condition. There were no bad symptoms during or after the transfusion. Death occurred on the fourth day.

In the sixth case, defibrinated blood mixed with ammonia was used. The instrument employed was a glass funnel with rubber tube and canula attached. Patient is still improving.

The seventh patient was in articulo mortis when transfusion was performed. Five ounces and a half of defibrinated blood mixed with ammonia were injected with Colin's instrument. No bad symptoms

occurred from the operation. The improvement, however, did not last more than two hours, and death took place the following day.

Colin's instrument was used *six* times without any unfavorable symptoms attending the operation, and as much improvement occurred as when the undefibrinated blood was used. I was somewhat surprised at this, because the first time I used the instrument in 1876 the symptoms were alarming and the operation had to be suspended. I think, however, that the blood in that case was not thoroughly defibrinated.

Judging from the results obtained during the present session, I am satisfied that transfusion of blood may be performed in the most extreme cases of exhaustion from excessive hemorrhage or organic disease without danger. The only thing necessary is to defibrinate the blood thoroughly and mix it with ammonia and inject it with Colin's instrument. Though I have not lost a patient from the use of my own instrument employed in thirteen cases, the symptoms exhibited have been often of such a startling nature that I feel justified in adopting for future use an operation which is free from these unfavorable symptoms, and at the same time one which is followed by equally good results.

An examination of the twenty cases transfused with blood by me during the past five years show that marked improvement followed the operation in eight cases, an improvement that could not be brought about by ordinary means. Improvement lasting but a few days occurred in seven cases. In *three* no beneficial change resulted, because faulty instruments were employed and the operation had to be suspended. One of the patients was in articulo mortis when the operation was performed, but even in this one, change for the better occurred. One made a complete recovery.

If we carefully compare the results of transfusion of blood with the results obtained from transfusion of milk, it will be readily seen that the symptoms developed during the latter operation indicate greater danger to life than those which are witnessed in the former, and that much more improvement follows the injection of blood than has ever been brought about by the intravenous injection of milk. Some of the improvement which took place in the cases reported by Prof. T. G. Thomas, of this city, and Dr. Charles Hunter, of Philadelphia, was undoubtedly due to stimulants administered during and after the operation. Brandy and ammonia were administered freely to some of Dr. Thomas's patients, and quinine in twenty-grain doses to Dr. Hunter's. These powerful remedies could not but induce an increase in the vital forces. It would not be reasonable, under the circumstances, to attribute the favorable change solely to the milk. Milk in the circulation is a foreign material, and though it is possible that the milk globules may ultimately be converted into blood-globules, yet the period of conversion would be so great as to preclude the probability of an immediate restorative effect. In this connection I may mention that Dr. Prout, of Brooklyn, in a communication to the MEDICAL RECORD, May 11, 1878, gives some interesting experiments in milk transfusion made by Dr. Wulfsberg, of Göttingen. Dr. W. found that a few hours after the injection of milk, the milk globules became enclosed in a colorless blood-corpuscle, and that ultimately the number of these colorless globules became very much increased. Dr. W. considers the intravenous injection of milk a dangerous operation unless the quantity employed is very small.

There is no doubt in my mind that the intravenous injection of milk is a dangerous operation, and one that should only be resorted to when blood cannot be obtained. Blood is the natural vitalizing element of the tissues, and with the precautions which I have pointed out, may be injected into the veins in all cases of acute anæmia, and excessive exhaustion from organic disease, without any danger to the patient.

# Original Communications.

## A CONTRIBUTION TO THE MEDICINAL TREATMENT OF CHRONIC TRIGEMINAL NEURALGIA.

BY E. C. SEGUIN, M.D.,

NEW YORK.

(Read before the New York Neurological Society).

HAVING recently met with three cases of severe chronic cases of neuralgia of the trigeminus which have been favorably influenced by the internal administration of medicines, I have requested the privilege of presenting a report upon them to the Society.

CASE I.—*Epileptiform neuralgia of thirteen years' standing: cure.*—J. W., a farmer, aged 63 years, presented himself at my clinic for Diseases of the Nervous System on or about June 15, 1878, and gave the following history: Has suffered from neuralgia in the right side of the face for thirteen years. The first pain, slight and stinging, made its appearance near the external angular process of the frontal bone. There was a gradual increase in the frequency of the paroxysms, and in the severity of the pain until the time of examination. During three years has had almost constant pain, *i. e.*, the paroxysms have been repeated every two or three minutes. There has been much pain at night, but the greatest suffering has always been experienced in the forenoon. The seat of neuralgia has been the right malar region and the lower anterior temporal region. Paroxysms have been excited by the contact of clothing or of the finger; by talking or eating, and by pulling the hair on the lip and cheek. The pain has never been periodical.

The patient's general health has always been good; he has had two attacks of malarial fever: one when a boy, the last six years ago. When the attack began he was living in Marlboro, Ulster Co., N.Y., considered a healthy place. Has never had syphilis; has always been temperate.

Attack witnessed at the clinic: A sharp and exceedingly severe pain appears in the region defined above, accompanied by injection of the cheek and eye, and the escape of tears. The paroxysm lasts several seconds, and returns every two or three minutes. Nitrite of amyl seems to mitigate the suffering. Examination of the affected and of adjacent parts is negative; there is no anæsthesia or true tender points, or any exciting cause of pain within the mouth. The etiology of the affection is unknown.

*Treatment.*—From June 17th to 21st, hypodermic injections of Squibb's chloroform were made daily through the mucous membrane of the cheek toward the malar region, from one to ten minims being used each time. In making these injections care was taken to avoid the point of exit of the infra-orbital nerve. The last injection was made near the supra-orbital nerve. These injections produced some smarting pain and secured relief for several hours each day, but did

no more; the pain returning the next day as severely as before. Some bad effects were, however, produced, and these are worthy of consideration because hypodermic injections of chloroform in the face are usually considered harmless. I observed in this case some swelling at the seat of injection, paresis of the lower facial muscles of the type produced by lesions of the cerebral hemispheres; there was also marked numbness and slight anæsthesia in the skin of the cheek near the angle of the mouth, and over the eyebrow. The electro-muscular reactions remained normal, no abscess followed, and the paresis gradually passed away. I might add that similar unpleasant results ensued in another case in my practice about a year ago.

On June 26th, 27th, 28th, daily injections of Fowler's solution (diluted one-half) were made in the affected cheek through the mucous membrane without good or bad effects.

From June 21st to 26th, I tried Thompson's solution of phosphorus, in doses of one teaspoonful (=$\frac{1}{15}$ gr.) three and four times a day without marked benefit.

Still, on the whole, at the end of June, the patient was somewhat improved, having severe paroxysms only from four to ten times a day; though slight, sharp pains were still very frequent.

About the end of June he was given iodide of potassium in gradually increasing doses of a saturated solution. He began with ten drops three times a day, and by an increase of five drops per day at each dose, he attained a maximum of ninety-five drops three times a day. No evident benefit resulted from this course, which was terminated on July 12th.

On July 13th, was ordered five drops of the fluid extract of gelseminum four times a day. July 15th.—Reports himself as very much relieved; no special symptoms have been produced by the drug; is directed to take eight drops four times daily. July 16th.—Yesterday had no paroxysm except while eating; there have been frequent but bearable "ticks" of pain in the vicinity of the right external angular process of the frontal bone. Is ordered to take ten drops four times a day.

August 1st.—About this time, as the patient could no longer stay in town, and as I was unwilling to let him take gelseminum while away from observation, the solution of iodide of potassium was again given in doses of sixty drops three times a day.

August 10th.—Patient returns to town, and reports himself no better; he has taken the medicine regularly, and has kept a journal of the attacks. The number of attacks per diem, usually excited by eating, etc., have varied from four to eight. The iodide is suspended. The actual platinum cautery is gently applied over the right malar and temporal regions, and five drops of Fowler's solution are given in water three times a day, to be gradually increased. August 20th, the diary shows a decrease in the number and in the severity of the pains; only from three to five paroxysms each day; three yesterday. Has been cauterized three times.

August 22d.—About this time the neuralgia ceased altogether, the dose of Fowler's solution being ten drops three times daily.

September 22d.—Patient has had no pain since the last note—a period of thirty-two days. Absolutely no pain has been felt, and the hyperæsthesia has disappeared; patient can eat, talk, wash, or rub his face with impunity for the first time in many years. The paresis of the lower face, produced by the injections of chloroform, has nearly passed away, and there is no more numbness. No toxic effects have been caused by the arsenic; but, as he has taken ten drops so long, a change is made to Thompson's solution of phosphorus, one teaspoonful three times a day.

On September 24th a few slight paroxysms occurred, and the patient, of his own accord, resumed the arsenical solution in full doses, and in a day or two the pains ceased, and they have not returned.

Early in November this patient was shown at my clinic. He then asserted that he was perfectly well, and his healthy and cheerful aspect confirmed his statement. As he has not returned, I feel reasonably sure that the good result has been permanent.*

Case II.—*Epileptiform trigeminal neuralgia of ten years' standing greatly relieved by treatment.*—H. S., aged 29 years, a janitor by occupation, consulted me on October 2, 1878, and gave the following history: Previous to the development of the present affection he had been subject to occasional dull headaches. Ten years ago he suddenly experienced a very severe sharp pain all through his head, "as if devils were at work there," lasting half an hour. There was no dizziness, or nausea, or faintness, or impairment of sight, or paralysis. For a period of six months he remained free from pain, and, indeed, was perfectly well; then a "dull, stupid pain" began over the right eye, extending from the supra-orbital notch inward to the nose, and down the side of the nose to the ala. This pain was paroxysmal, and worse in the day-time. Later the pain extended to the eyeball, and was exceedingly severe; the paroxysms recurring from ten to twelve times a day. In the course of two or three years pain made its appearance in the right temple, worse at night.

In the last few years the most pain has been on the top of the head, above the temple, and in front of the ear to the bregma. There has lately been an occasional and rare pain in the nose; not much in the temple. During the past summer and since, there has been some occipital pain on both sides, more on the right. In the last year there has also been pain in both jaws, in the upper lip near the median line; none in the tongue. In the last four years vision has been dim, and glasses have not corrected this defect. Five years ago, while taking medicine, had temporary diplopia. At various times during this long illness has had "dizzy spells" with varying frequency; seldom in the last few months. Has had no symptoms in other parts of the body; memory is impaired; the virile power quite lost. Had severe dyspepsia and vomiting three years ago, and has been costive during the whole period of the disease. The various painful regions are hyperæsthetic, but not numb, and the tactile sensibility is perfectly preserved on both sides. There is no facial paralysis; the right pupil is positively small, the left normal. After dilatation by atropine, the ophthalmoscope shows nothing abnormal in the bottom of the eye. Hearing, smell, and taste are normal. The urine has been frequently examined by physicians and always found normal; it is now free from albumen. Marked anæmia is present in the skin and mucous membranes; has always been pale.

The paroxysms of pain are the most terrible which I have ever witnessed; the patient fairly writhing in his chair or falling to the floor in his agony. During the attack the right eye is very much injected and waters.

The patient states that no medicine has ever relieved him, and he has tried a great many. I at once prescribed Duquesnel's crystallized aconitia, a remedy

* A letter from this patient's wife, received about December 10th, states that he remains well.

with which I had obtained remarkable results during the year. The prescription was:

℞. Aconitiæ (Duquesnel's)..... gr. ¼
Alcoholis,
Glycerinæ, ää..... ʒ i.
Aq. menthæ pip. ad..... ℥ ij.
M.

S.—A teaspoonful three times a day between meals.

I also gave him one teaspoonful of Wyeth's dialyzed iron every evening at bed-time.

Oct. 3d.—Has severe paroxysms every day; seven on October 3d, and nine yesterday.

Oct. 11th.—Has only slight physiological effects (numbness) in the finger-tips; from six to nine attacks each day. Now takes $\frac{1}{10}$ gr. aconitiæ three times a day.

Oct. 14th.—On the 12th had twelve severe spells; only two yesterday. He yesterday took, by mistake, ʒ ij. of aconitia solution, or $\frac{1}{10}$ gr., twice, and two doses of ʒ i., and this morning ʒ ij. This is the equivalent of $\frac{1}{10}$ gr. of aconitia in twenty-four hours. He is very nervous, feels as if electricity were passing through his body and limbs; he "cannot contain himself." As this was a mistake, I directed him to resume the prescribed doses of ʒ iss. ter die. The results of this mistake were, however, most fortunate; improvement began from this strong impression of aconitia upon the system, as shown in the tabular record of paroxysms:

Oct. 19th.—Excellent record: since October 13th has had only from one to three severe attacks; ordered to continue aconitia and to begin a saturated solution of iodide of potassium in five drop doses.

Oct. 31st.—Continues to do well, *i. e.*, has from one to two or three severe paroxysms daily, and a number of slight twinges. Feels numb and "very cold" from three doses of aconitia. Can't be warmed even by an overcoat; general condition much improved; physiognomy calm and contented. Besides aconitia, takes twenty-eight drops of solution of potash.

Nov. 30th.—Improvement maintained. Passes some days without severe attacks, and a few with no pain at all. Has done much of his work as janitor of late. The aconitia has lately (since 23d) been taken twice a day, and has hardly any numbness.

On Dec. 19.—Pills of arsenic $\frac{1}{75}$ gr., quinia gr. iii., and belladonna ¼ gr., were substituted for the iodide of potassium. The iron is kept up at night, ʒ i. of dialyzed iron.

Case III.—*Neuralgia of Right Inferior Maxillary Nerve of eight years' duration; cure.*—Observed at the College of Physicians and Surgeons. Mrs. A. D., aged fifty-seven; was first seen at clinic for diseases of the nervous system in the autumn of 1874. She gave the following history: In 1870 had trouble with the teeth in the right lower jaw, "caught cold in the gums," and the present pain began. It occurred in paroxysms of sharp, severe pains in the right lower jaw, right half of tongue, and right half of lower lip. She suffered with no intermission up to the time when Dr. D. M. Stimson sent her to the college. The medicinal treatment which I then advised had no more effect on the neuralgia than others which had been tried, including extraction of the teeth.

In the succeeding summer, 1875, Mrs. D. again came to see me, representing herself as under no physician's care. I accordingly took charge of her, and excised at least one-quarter of an inch of her infra-maxillary nerve by the intra-buccal method, also known as Lizars'. This was followed by absolute cessation of all pain in lip, tongue, and jaw, and by anæsthesia of the right half of the lower lip.

In a few weeks—patient thinks three or four—some return of sensibility occurred in the anæsthetic district, and has increased until now; even delicate tests reveal no anæsthesia. No pain recurred until the early spring of 1877, a period of twenty months. In April, 1877, patient's husband died, and she sat a long time near the ice-box in which his body was preserved. Immediately had a return of neuralgic pain in the same regions, viz., tongue, gum, and lower lip of right side. The pain was again sharp and paroxysmal. She suffered greatly until late in the autumn of 1877, when spontaneous relief took place, and she had pain only at intervals during the whole winter. The only medicine which she took during this time was cod-liver oil. She had no powerful drugs. In the spring and early summer of this year she had as frequent and as severe attacks of pain as at any time; many paroxysms each day, attacks epileptiform in suddenness of appearance and in severity. She presented herself at the Clinic for Diseases of the Nervous System for the third time, in July 13, 1878, and the following notes from the clinic case-book embrace her history since that date:

July 15th.—The pain begins in the gum of the right lower jaw, then darts into the right half of tongue along its whole length, especially in its anterior portions; it also affects the right half of the lower lip. She has no pain in the upper jaw or in the distribution of first branch of trigeminus, but it should be stated that she has a good deal of pain, also neuralgic in character, in the right side of the head behind the ear, the right side of the neck, and right shoulder. From almost the commencement of her illness, more or less of this pain has existed, varying greatly at times, but not annoying so much by far as the maxillary neuralgia. The paroxysms of pain in the jaw and tongue come on every few minutes. Once in a while, the patient adds, when the pain is greatest in the above described region, a little of it shows itself in the gum of the right upper jaw. Is ordered a tonic mixture.

July 20th.—Is better, generally, than last week. Ordered extract. gelsemini fld., gtt. v., t. i. d., the dose to be increased by one drop each day.

July 27th.—Pain relieved by the gelseminum, gtt. vij. of which produced queer sensations and double vision. In the last few days has taken only gtt. vi., t. i. d. Ordered gtt. v. twice a day and gtt. x. at bed-time.

August 3d.—No marked benefit from above treatment, although much distress was produced by doses. Ordered $\frac{1}{120}$ grain of Duquesnel's aconitia in solution t. i. d.

August 10th.—On the 7th reported at my office, and as the above doses had produced no effect, I directed her to take $\frac{1}{100}$ grain t. i. d. on an empty stomach. To-day (three days after beginning the larger doses) she is free from neuralgic pain, though some soreness of the parts remains. After each dose of $\frac{1}{100}$ grain had some tingling in extremities and face. Treatment to be continued.

August 31st.—Has had no paroxysm of pain since beginning the $\frac{1}{100}$ grain dose. Has only noticed an occasional soreness in the tongue, provoked especially by acids. Can eat with comfort, whereas four weeks ago attempts at mastication caused agony. States that effects of one dose of aconitia consist in tingling in the whole body, most marked in the toes and fingers, and in peculiar chilly sensations.

The pain in the neck and shoulders is not wholly relieved. Complains of much sweating at nights. To take for two or three days one ten-grain dose of sulphate of quinia at bedtime. The aconitia to be omitted, and Fowler's solution to be taken instead, in doses of gtt. iij. after meals, gradually increased.

September 14th.—Has remained perfectly free from facial neuralgia, and has had only moderate pain inside of neck, right shoulder, and upper arm. Has taken gtt. x. of Fowler's solution without unpleasant effects; sweating arrested. Ordered to cease taking arsenic, and to use ʒ i. of Thompson's solution of phosphorus (= $\frac{1}{15}$ grain of phosphorus), night and morning.

September 21st.—Had slight return of pain in right lower jaw and tongue on September 18th and 19th; arrested by a few doses of aconitia. To-day is perfectly well, except that right side of neck and arm are painful.

October 11th.—Has had no return of neuralgia since last note, and neck has not been so painful. States that she has more or less pain in the whole right side from behind the ear to arms and down lower extremity to heel at times. With exception of slight neuralgic pains on September 18th and 19th, has had no recurrence of inferior maxillary or lingual neuralgia since August 7th, a period of sixty-five days.

It seems to me that three conclusions may legitimately be drawn from the above related cases:

1. That there is a possibility of relief in most severe cases of epileptiform trigeminal neuralgia. The usually received opinion is that, in such cases, recourse must be had to operation upon deep branches of the nerve, excision of Meckel's ganglion, etc., and to the systematic use of morphia to make life endurable. After my experience with the above cases, I am disposed to urge a sufferer from trigeminal neuralgia to make a trial of medicinal treatment.

2. The advantage of using medicines systematically. Not only should the doses of any one remedy be administered regularly and in progressively increasing doses, but several remedies may be used in succession, so as to profoundly affect the system. Of the medicines applicable for the treatment of neuralgia, the following are those which I can recommend most highly: aconitia, arsenic, iodide of potassium, gelseminum, belladonna, quinia, morphia, galvanism, the actual cautery, Thompson's solution of phosphorus.

3. In the treatment of chronic neuralgia and of many neuroses, it is necessary to obtain the physiological effects of the drug employed, in order to do good. This principle of heroic medication is one which ensures success in seemingly desperate cases, and its execution requires the utmost watchfulness on the part of the physician, and intelligence and faithfulness on the part of the patient and his attendants. Many unpleasant consequences of such treatment may be avoided if we at first give very small doses of the remedy, and then make a very progressive increase. The good effects of giving medicines to the production of physiological effects are illustrated in the above cases; in the treatment of chorea by arsenic; of malarial affections by quinia; of spinal congestion and myelitis by belladonna; of syphilitic disease by mercury and iodide of potassium, etc., etc.

Inasmuch as the good effects noted in Cases II. and III. were obtained by the action of Duquesnel's aconitia, it may not be amiss to close this short communication by quoting the conclusions of a report on aconitia recently made to the N. Y. Therapeutical Society by its Committee on Neurotics.*

The chairman of this committee says:

"From the above cases the following conclusions may be justly drawn, I think:

1. The susceptibility of individuals to Duquesnel's aconitia varies enormously; one individual in the series having been severely affected by $\frac{1}{100}$ grain, while another tolerated with no special symptoms $\frac{1}{64}$ grain every three hours. On the average, distinct physiological and therapeutical effects were obtained by giving $\frac{1}{100}$ grain three times a day.

2. Out of six cases of severe trigeminal neuralgia, one, probably a reflex neuralgia from a decayed tooth, was not at all benefited.

Three cases, epileptiform in character, were slightly or only temporarily relieved. Two cases were cured. One of these had existed for seven years, with an interruption of twenty months, procured by resection of the affected nerve.

It would thus appear that, while we cannot indorse Prof. Gubler's statement that Duquesnel's aconitia never fails, we must recognize in it one of the most powerful and best agents for relieving and curing trigeminal neuralgia.

3. We do not as yet know the forms of trigeminal neuralgia which can be most influenced by aconitia."

## MEDIO-LATERAL LITHOTOMY, IN A COMPLICATED CASE OF VESICAL CALCULUS.

By JOHN A. WYETH, M.D.,

NEW YORK.

A GENTLEMAN, aged 53, a native of Bermuda, was sent me by my friend Dr. John H. Arton, practising in that island. Several years ago he had suffered from renal colic, and a few days afterwards had passed by the urethra two small stones, about one-quarter of an inch each in diameter. These I found to be phosphates. In 1876 symptoms of vesical irritation appeared, which increased until, in November, 1878, he was forced to seek relief by an operation. Upon sounding him, a stone was detected, not in the fundus, but seemingly caught in a pocket just behind the pubic symphysis, well above the urethral opening of the bladder. Its size could not be accurately estimated by the sound, owing to its being touched on only one side. After consulting with my friends, Prof. F. H. Hamilton and Dr. E. A. Banks, after a preparatory course of treatment for ten days, it was determined to attempt lithotrity under ether, and, this failing or being deemed impracticable, to resort to lithotrity. With the assistance of these gentlemen, and of Drs. Russel, Irquhart, Wardwell, and Wilkinson, I introduced a Thompson's lithotrite, and, after the most patient and persistent effort, it was found impossible to engage the stone in the jaws of the instrument. Upon sweeping the floor of the bladder with the convex surface of the lithotrite, the stone could not be felt; but, by depressing the handle well towards the coccyx, the tip of closed blades could be felt to strike the calculus, which was rough; but, although the bladder contained about five ounces of water, and the blades were carefully separated to as much as two inches, and were felt grating against the stone, it could not be firmly engaged between them. There was left the *dernier ressort* of cutting,

* *Vide* N. Y. Medical Journal, Dec., 1878, p. 621.

and the median operation was performed. Upon introducing the finger to dilate the prostatic urethra, the stone was discovered well up behind the pubis, caught in a vesical pouch, in which it was crushed by the large forceps, and the pieces were scraped out with considerable difficulty. This part of the procedure, owing to the large size of the stone, and immense number of fragments, was so tedious that, before it could be completed, owing to threatened collapse on the part of the patient, it was discontinued temporarily. He rallied quite well in the course of ten or twelve hours, passed his urine through the wound and urethra simultaneously, and, in addition, through the wound, some small pieces of stone. Three days later, the temperature being only 100° F., and condition otherwise good, the wound was enlarged laterally, under an anæsthetic, and the remaining fragments removed, the bladder thoroughly washed, and a large drainage-tube left in the bladder. Putting the pieces together, the calculus measured two inches in diameter, and was almost round—the fragments, which were preserved, weighing 624 grains (troy). The patient vomited while the effects of the ether were passing off, and this gastric intolerance continued to such an extent that no aliment could be retained in the stomach. Enemata were regularly given every few hours, and fifteen grains of quinine hypodermically each day, and, although the temperature at no time reached more than 101¼, the patient died of exhaustion due to gastric intolerance, eight days after the last operation. The wound was doing nicely, the drainage was free and uninterrupted, and there was no symptom of pyæmia or peritonitis, and no complaint of suffering other than the extreme nausea. An autopsy was not obtained. An ante-mortem examination of the urine showed no signs of renal disease.

# Reports of Hospitals.

## THROAT CLINIC AT CHARITY HOSPITAL, B. I.

SERVICE OF DR. ELSBERG.

(Reported by C. C. RICE, M.D., Resident Physician.)

### I.

### THE LARYNX IN CASES OF LEPROSY (ELEPHANTIASIS GRÆCORUM).

VERY few laryngoscopical examinations of leprous patients have hitherto been reported. Indeed, in this country, the disease itself is so rarely met with that every contribution to its statistics is of some value.

CASE I.—Emilio Trenal, æt. 19; single; native of Santiago, Cuba; admitted to hospital June 21, 1878. The patient is a bright, intelligent boy. He knows very little about his parents, as they died when he was quite young. He lived in Cuba until he was nine years of age, and has been in New York since. Nothing definite as regards hereditary taint could be learned. He thinks his mother had white spots on her face, similar to the cicatrices on his own body, but never heard that she had leprosy. She died of cholera. His father died of yellow fever. He never saw any one suffering from this disease until the admission of the other patient (Case II.) in July, 1878. His general health has always been good. He describes very accurately premonitory symptoms, which he experienced four years ago; they correspond to those spoken of by Duhring,* such as malaise, sleepiness, headache, chills and fever, and pains in bones. These continued with varying intensity for a year before he noticed any manifestation of the disease. First, two red spots, and then, on the same places, hard, brownish red lumps showed themselves on his left cheek near the nose, and the neighboring tissue became somewhat indurated. The disease seems to have made but very little progress for two years. In June, 1876, he had an acute attack of rheumatism, and was admitted to Charity Hospital as a patient. He was told at this time by the visiting physician that he had leprosy. He received some medication, and the tubers decreased in size, leaving brownish white cicatrices. In July, 1877, new indications of the disease appeared. The lower portions of the forehead became hard and brawny; a little later the surface was raised into tuberous masses. These tuberosities range in size from that of a cent to that of a silver dollar. They are hard and involve the skin, which cannot be moved above the mass. Some of them seem to be an aggregation of smaller ones, but as a rule they are arranged singly. Their outline is quite well defined, and they are surrounded by healthy tissues. His eyebrows came out. His hair, which was formerly black, turned to a dingy brown. The eruption gradually spread over the lower portion of the face, involving especially the nose, lips, chin, and cheeks. The ears were only slightly affected. The overhanging eyebrows, the large nose studded with tuberous excrescences, and the cheeks and chin thrown into rough and uneven appearing ridges, all help to give the patient the peculiar expression of the face called "leontiasis." There is nothing on the body but a few white scars, which were formerly dark maculæ. The forearms and legs have become much darker, and are covered with brawny scales, which desquamate constantly. There are only three points of ulceration on the body, two on the calf of the right leg and one on the inner side of the left thigh. These are not at all painful, and there seems to be more or less anæsthesia of the upper and lower extremities, though he thinks his face is rather more sensitive than in health. During the last year he has noticed a gradual change in his voice. He has always been fond of music, and sang a high tenor; now he speaks in a peculiarly husky or muffled tone, and, when he attempts to reach a high note or sing softly, he finds that he is not able to make any sound. He is obliged to constantly clear his throat, and he suffers a little from dyspnœa after exertion. He has no difficulty in deglutition, but in drinking water he is relieved by pressing on his thyroid cartilage. When examined with the laryngoscope by Dr. Elsberg, it was found that the air-passages have undergone changes similar to those on the face. All the portions of the mouth and throat rich in loose connective and adipose tissues are more or less involved, while, where the mucous membrane is attached more closely to the harder structures beneath, it is intact. The tongue is large, swollen, and fissured, but there are no ulcerations The uvula is long, and the surface made uneven by the presence of several small tubers. With the exception of some hyperæmia and hyper-secretion, there are no pathological changes on either the hard or soft palate or the pharynx. The laryngoscope revealed a large, thick, congested epiglottis (Fig. 1.) Its free margin had lost its symmetry, and seemed to be carried backward over the larynx by the weight of the tuberous masses, which

* A Practical Treatise on Diseases of the Skin, by Louis A. Duhring, M.D., Philadelphia, 1877, page 432.

covered it so that only its lingual surface could be seen. Such masses were on each side of the frenum and extended forward toward the tongue. Only the arytenoid cartilages and parts of the vocal bands appeared in the mirror when the epiglottis was slightly raised during forced inspiration. To see all the parts required a number of views and various manœuvres. The upper aperture of the larynx has become irregular

FIG. 1.

and altogether smaller. The ary-epiglottic folds are tumefied and studded sparingly with small tubers. The ventricular folds present the same swollen and congested appearance, with a number of tuberosities, and partially cover the vocal bands, so that during phonation only the inner edges of the latter can be seen. These are white and glistening. The mucous membrane covering the arytenoid cartilages is greatly swollen and dark-red in color. Two tubers of somewhat larger size are on the right arytenoid and one on the left. The parts move sluggishly during phonation. The mucous membrane of the larynx and surrounding parts hypersecretes. The patient's general health is fair; he suffers considerably from mental anxiety. His appetite is good. He has no pulmonary or cardiac trouble, and the kidneys seem to be in a normal condition.

CASE II.—Abraham Brown, aged forty-five; native of New York; bricklayer; admitted July 5, 1878.

His family history is excellent. Nothing of importance, or that relates in any way to his present disease, can be stated of patient up to his thirty-second year. His habits were good, and he worked in New York at his trade as a mason until of that age. He then went to Santiago, Cuba, and remained three years. He returned to New York, and has lived there since. Like Trenal, he never had seen a case of leprosy until he came to the hospital. He noticed nothing in regard to himself until one month before the eruption appeared on his face. The prodromata in this case were somewhat similar to the other. He also had frequent chills, and was considerably troubled with drowsiness and languor; but these were not severe enough to prevent his working. In March, 1878, the face became covered with tubers, and now presents a more characteristic appearance of the disease than the other case. The lumps are somewhat larger than those upon Trenal's face, but their physical character is very similar. The eyebrows are quite prominent, and give to the patient a very savage appearance. The nose, chin, and lips are like Trenal's, but the lobubes of the ears are very much enlarged, and hang down like immense ear-rings. The whole face has become much darker. The body for the most part has preserved its integrity. The legs and arms are brownish-red, and covered with fine scales. The disease has gone on to ulceration on the fingers and toes. Hands and feet are swollen, the two last phalanges covered with bad-looking sores, which discharge very little, and are only slightly painful. The nails have almost entirely disappeared, except those upon the great toes, and they are already loose and will soon be gone. The mouth and pharynx have not escaped. The tongue is so thick that the patient speaks like a drunken man, and saliva dribbles from his mouth. The gums are red and somewhat swollen, but there is no ulceration; the tonsils seem to be very slightly affected. The palato-glossal and palato-pharyngeal folds have been ulcerated through and become adherent in several places. The inner side of the cheeks and posterior wall of the pharynx are dotted with small papillary excrescences; there is one large ulcer on the hard palate. The patient has ozœnic catarrh, and although the pituitary membrane seems to be injected, none of the tuberosities are apparent in either the nasal organ or pharyngo-nasal space. The epiglottis is considerably tumefied, its free edge thick and irregular, with angular lateral boundaries. (Fig. 2.) It hangs heavily back over the larynx, and seems to have lost its elasticity. The ary-epiglottic folds and the ventricular bands are enlarged, congested, and uneven, covered with a few large and many smaller tubers. The lumps partially hide and give to the arytenoid cartilages an ill-defined and shapeless appearance. The posterior halves of the vocal bands are masked beneath this new growth.

FIG. 2.

Two large lumps are seen, the one anterior and the other posterior to the left arytenoid, on its inner side. The right arytenoid, although involved throughout its whole extent, has no tuberosities which rise above the general level and which are sharply defined. There is less swelling about the anterior half of the rima glottidis, and the vocal bands can be seen to approach each other during phonation. They are of a dirty yellow color. In the inter-arytenoid space one large tuber stands out prominently into the larynx.

The general condition of the patient is not as favorable as that of Trenal.

The accompanying drawings were made by Dr. H. Levy, Assistant House-Physician.

Professor Elsberg made some additional remarks on laryngeal leprosy. He said that the systemic cachexia which constitutes the disease, as manifested in the skin, nerves, etc., as well as on mucous membranes, is not sufficiently understood to enable us to speak positively as to its nature.

"Lepra arabum" and "elephantiasis græcorum" are equivalent designations for leprosy, but "elephantiasis arabum" and "lepra græcorum," though sometimes confounded, are names for two diseases differing from each other and from leprosy. Elephantiasis arabum is a hypertrophy of the skin and subcutaneous (sometimes also submucous) connective tissue, while lepra græcorum is a scaly skin disease, a variety of psoriasis.

The laryngeal disease occurs in all, or nearly all, cases of leprosy. It appears secondarily in time to the cutaneous, although occasionally the latter is for a time so slight, in comparison with the affection of the

mouth, throat, and larynx, that this assumes prominence. At the present day, leprosy occurs almost exclusively in certain countries, chiefly tropical, or in persons who have visited or resided for a longer or shorter time in such countries.

Topographical circumstances have most to do with the affection. Although its cause is shrouded in mystery, climatic agencies, including noxious soil, environment, habitation, food, and other local (endemic) or personal unhygienic influences are recognized as producing the disease. Hereditary predisposition exerts considerable effect; but it is not contagious.

The three types or forms recognized in the skin affection—*lepra maculosa*, spotted leprosy, *lepra tuberosa*, lumpy leprosy, and *lepra anæsthetica seu mutilans*, anæsthetic or mutilating leprosy—usually occur as stages merely in the laryngeal disease. The first pathological change noticeable is vascular injection; the vessels become very visible, the veins are varicose, then, on spots ordinarily small, but sometimes large, the epithelium is found lost, and in places more or less deep infiltration occurs; hypersecretion is present in almost every case. The infiltrated masses may be seen to be covered with a thick layer of epithelium, of which they are easily deprived, and which is as easily regenerated. These lumps, though at first sometimes very firm, have a decided inclination to ulceration; but the destructive process does not usually involve more deep-seated structures. Form-changes of various parts of the larynx occur from the infiltration, later from ulceration, and then from cicatrization. The lumen of the upper aperture is almost always interfered with, and, in the progress of the case, stenosis, possibly sometimes to a dangerous and fatal extent, is sure to take place.

By the aid of the laryngoscope, it is usually easy to determine whether and to what extent the larynx is affected in a case of leprosy. At first, dilated blood-vessels are seen on the epiglottis, with a peculiar reddish-yellow appearance of the interior of the larynx; then, frequently, gray or dirty discoloration of the vocal bands; and later on, with increased vascularization, the lumps and ulcers. The latter are readily distinguished, from their peculiar appearance and localization, from laryngeal carcinomatous granulations and ulcerations. The diseases which produce similar appearances are lupus, syphilis, and phthisis. The clinical history, and especially the cutaneous and other manifestations generally, make a differential diagnosis between these and laryngeal leprosy a matter of no great difficulty. The intense vascular injection is absent in phthisis, and Dr. Elsberg prefers to avoid the term tubercle, which has come to be identified with phthisis, when designating the lumps or tubers of leprosy.

The peculiarly husky voice of lepers was well known in the Middle Ages,* and constituted an important sign in the *inspectio leprosorum*. Dyspnœa also occurs in the course of the disease, but cough and pain in the region of the larynx very seldom; there is more or less anæsthesia, and the introduction of instruments produces no reaction. Deglutition is sometimes affected; but this, too, is comparatively slight and disproportionate to the destruction that may take place in the upper part of the larynx and the lower portion of the pharynx. The prognosis of laryngeal leprosy is always unfavorable. The voice cannot be restored, even though life may not be destroyed by the disease of the larynx.

In addition to the other therapeutic and particularly hygienic measures to be adopted in the case of leprous patients, the condition of the larynx requires cleansing spray and soothing local inhalations. A diluted emulsion of gurjun oil (balsam dipterocarpi) has of late years been praised very highly as a local as well as internal remedy in leprosy. Applications of saturated solution of iodoform in sulphuric ether have proved grateful. To prevent death from laryngeal stenosis, tracheotomy should be performed, but it has not been called for in any case within Dr. Elsberg's knowledge.

## Progress of Medical Science.

Membranous Croup and Diphtheria.—At a recent meeting of the Royal Medical and Chirurgical Society, Dr. Andrews presented the report of the committee appointed to examine into the relations existing between these two diseases. The following are the conclusions arrived at: 1. Membranous inflammation confined to or chiefly affecting the larynx or trachea may arise from a variety of causes, as follows: (*a*), from the diphtheritic contagion; (*b*), by means of foul water, of foul air, or other agents, such as are commonly concerned in the generation or transmission of zymotic diseases; (*c*), as an accompaniment of measles, scarlatina, or typhoid, independently of any ascertainable exposure to the especial diphtheritic infection; (*d*), it is stated, on apparently conclusive evidence, that membranous inflammation of the larynx and trachea may be produced by various accidental sources of irritation—the inhalation of hot water or steam, the contact of acids, the pressure of a foreign body in the larynx, and a cut throat. 2. There is evidence in cases which have fallen under the observation of members of the committee, that membranous affections of the larynx and trachea have shortly followed exposure to cold, but their knowledge of the individual cases is not sufficient to exclude the possible intervention or coexistence of other causes. The majority of cases of croupal symptoms directly traceable to cold appear to be of the nature of laryngeal catarrh. 3. Membranous inflammation, chiefly of the larynx and trachea, to which the name "membranous croup" would commonly be applied, may be imparted by an influence, epidemic or of other sort, which in other persons has produced pharyngeal diphtheria. 4. And, conversely, a person suffering with the membranous affection, chiefly of the air-passages, such as would commonly be termed membranous croup, may communicate to another a membranous condition, limited to the pharynx and tonsils, which will be commonly regarded as diphtheritic. It will thus be seen that, in the opinion of the committee, these two diseases are identical. It is suggested that the term "croup" be henceforth used wholly as a clinical definition, implying laryngeal obstruction, occurring with febrile symptoms in children, which may be membranous or not membranous, due to diphtheria or not so. The term "diphtheria" is the anatomical definition of a zymotic disease, which may or may not be attended with croup. It is admitted, however, that when obviously occurring from a zymotic cause or distinct infection, and primarily affecting the pharynx, constitutional depression is more marked, and albuminuria is more often and more largely present, though in both conditions some albumen in the urine is more frequently present than ab-

* Says Hans von Gersdorf, in his *Feldbuch der Wundarztnei*, 1526: "Das erst zeychen ist die heyssere in der stymm und red, enge des otems."—Virchow's *Die Krankhaften Geschwülste*, Vol. ii., p. 519.

sent. That this position taken by the committee will not be unchallenged may be inferred from the editorial remarks of the *Medical Press and Circular*, which, in commenting upon the report, says: "If 'croup' and 'diphtheria' can be shown to be mutually communicable, to arise from one and the same cause, and to be attended, in many instances, with the same constitutional symptoms, then, and then only must the old distinction between these diseases fall to the ground. But with regard to this point the report of the committee is not so clear as might be desired."—*Medical Press and Circular.*

In connection with this subject, particular interest is attached to the investigations into the pathogeny of diphtheria, conducted by Drs. Edward Curtis and Thomas E. Satterthwaite, in pursuance of a resolution of the Board of Health of this city. The question proposed for solution by these investigators was *the nature of the infective principle of diphtheria, and the circumstances that determine the infection.* Experiments were made upon rabbits by inoculations of the diphtheritic membrane, at first upon the cornea, and afterwards into the muscular tissue of the thighs. The first method was not followed by definite results, but by the second a fatal disease was induced, which many investigators have deemed identical with diphtheria in man, but which these researches have shown to be essentially dissimilar. The results of these investigations may be summed up as follows: "I. Inoculation of diphtheritic membrane into the muscular tissue of the rabbit produces severe local lesions, and even constitutional disturbances and death. But these effects differ so in their pathology and clinical history from diphtheria in the human subject that there is no warrant for defining them as diphtheria, or for applying conclusions drawn from this inoculation disease in the rabbit to the case of diphtheria in man. II. Effects exactly similar to the foregoing and of equal severity can, moreover, be produced by inoculation of a material not only non-diphtheritic, but non-infectious to the human subject under conditions where the diphtheritic membrane *is* infectious; *i. e.*, when brought into contact with the mucous membrane of the mouth and throat. The material referred to is the pulpy scraping of the upper surface of the healthy human tongue. III. Effects generally similar to the foregoing, though not of equal intensity, can furthermore be produced by inoculation of a putrescent matter which is not even of immediate animal origin—namely, Cohn's fluid—allowed to spontaneously decompose (Cohn's fluid is an aqueous solution of ammoniac tartrate, potassic and calcic phosphates, and magnesic sulphate. IV. The foregoing inoculation effects are not due to simple mechanical irritation, for inoculations of sand produce no effect whatever. V. Thorough filtration of a proven virulent aqueous infusion of diphtheritic membrane or of putrid Cohn's fluid removes the infectious property of the same. Hence, in such diphtheritic infusion the poisonous quality probably inheres in some *particulate* thing, from which it is not separable by the action of cold water. VI. Thorough trituration of proven virulent diphtheritic membrane and tongue-scrapings with a high percentage of salicylic acid fails not only to remove, but even markedly to modify the intensity of the infectious quality of those substances. Hence, since salicylic acid, in even a minute percentage, is capable of permanently suspending the vital activity of bacteria, the inference is that the infectious quality of the diphtheritic membrane upon the system of the rabbit is not correlated to the vital activity of the bacteria present in such membrane. VII. If, as is not improbable, the noxious principle in diphtheritic membrane, which produces in rabbits the effects described, be the same with or even analogous to the principle which produces diphtheria in man by direct infection, then the conclusion of VI. will apply to the infectious quality of such membrane in its relation to the reproduction of diphtheria in the human subject. If this be the case, it follows, as an important practical corollary, that *there is no theoretical ground for assuming that preventing the bacteria of a diphtheritic patch from making their way through the underlying mucous membrane will, per se, prevent general diphtheritic infection of the system.* VIII. There is no relation between inoculable virulence of a diphtheritic membrane and the period, within three days, that has elapsed between the detachment of the membrane and the inoculation of the same, nor between inoculable virulence and gross amount of bacteria present in the membrane. IX. There is a rough relation between inoculable virulence of a diphtheritic membrane and the severity of the original case of diphtheria, so far as this can be estimated by the termination of the case in death or recovery. These nine propositions are not put forth as *proven*, but merely as the results of the experiments and observations, as far as the latter go, stated in abstract form. Before the propositions can be considered proved as truths, a large number of corroborative experiments will have to be made." —*Report of Investigations into the Pathogeny of Diphtheria*, 1878.

Adenoma of the Uterus.—Prof. C. Schroeder reports two cases of adenoma diffusum uteri and two of adenoma polyposum, all of which were cured by operation. The two former were treated by scraping with the sharp curette, followed by injections of the perchloride of iron. Microscopical examination of the pieces scraped off revealed thickened uterine mucous membrane, enclosing closely packed and enlarged uterine follicles. In one of the cases of adenoma polyposum the tumor was found in the vagina; it was as large as a child's head, and was attached by a long pedicle to the body of the uterus. It was removed by the wire écraseur. On microscopical examination, it was found to consist of uterine glands, many of which had developed into large cysts, and of connective tissue rich in nuclei; the pedicle, which spread out like a tree in the interior of the tumor, was composed of connective tissue and smooth muscular fibres. In the other case, the microscopical structure was the same, except that none of the follicles had developed into cysts.

Prof. Schroeder states that a characteristic feature of the vegetations of the uterine mucosa—called also endometritis fungosa by Olshausen—is that the cervical canal is greatly dilated, while the os internum, on the contrary, is closed. The adenoma polyposum has as yet been but little studied, but it cannot be regarded as a pure product of the uterine mucous membrane. It is a peculiar fact that the adenoma polyposum has as yet only been met with in elderly women who never were pregnant, while the adenoma diffusum has been met with both in nullipara and in multipara.—*Allg. Med. Cent. Zeit.*, No. 47, 1878.

Hamburg Tea.—℞. Senna leaves, 8 parts; manna, 4 parts; coriander, 1 part. Mix.—*A Correspondent in "New Remedies."*

Vulvar Pruritus.—℞. Ol. cadi, f℥j.; amyli glycerit., f℥j. M. Apply. This is highly recommended by M. Marius Key in *Gaz. Méd. de Paris.*

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, January 4, 1879.


## HOSPITAL PATIENTS WHO CAN PAY.

THE discussion bearing upon the contemplated experiment at St. Thomas's Hospital, London, in regard to "patients who can pay," is bringing many matters to light connected with hospital management there which have a striking correspondence with the abuses in our own systems of medical charity. There, as here, the poor are not the only ones ministered to, but fully one-third of the aggregate number of so-called pauper patients are able to maintain themselves outside, and pay a small fee for medical services besides. These belong to a class of patients who would hesitate to ask charity from any other source, and yet would not be backward in using any means for securing free attendance in hospital. The *Lancet* very truly says: "Employees in receipt of good salaries, members of the families of well-to-do tradesmen, and even those of higher station, do not scruple to abuse the charity of these institutions, and evade the payment of just fees to medical men. More particularly is this the case in regard to special maladies, when the pitiful excuse of being unable to pay for the 'best advice' is adopted to disguise meanness and dishonesty." While it is fair to suppose that this abuse of medical charity would be carried to an extreme where there are no means to check it, as for instance, in hospitals which have no provisions for pay patients, it is equally reasonable to inquire whether the establishment of such a department in the St. Thomas's Hospital will entirely remedy the difficulty. Although it may do so in a measure, it will not do so absolutely. Patients who can afford to pay good fees to outside practitioners will constantly present themselves as ordinary pay patients to such an hospital, and as long as the superintendent and managers are satisfied with the amount offered for board and lodging, no questions will, as a rule, be asked as to outside pecuniary capability of the applicants. As far as the managers are concerned, this is a pure business arrangement to make the institution pay as a boarding-house. The benefit of a doubt as to the ability to pay for medical services extra is always given to the patient who is ready to pay his board-bill. It is said that any misunderstanding between the managers of the hospital and the medical staff regarding this point will be satisfactorily anticipated by a scrutinizing inquiry into the worthiness of the patient's application. Without showing any want of faith in the good intentions of the managers, or any want of appreciation of the innocence of the staff, we are, nevertheless, very much interested to see how the promise can be fulfilled.

But if, contrary to the general experience in this city, we allow thus much to be possible, there is still a chance for abuse in the admission, at a nominal board fee, of good paying patients, whose cases are from a medical point of view interesting ones. The temptation on the part of the hospital staff to treat such patients, entirely irrespective of any fee, is too strong to be generally resisted. Perhaps the only exception to the rule is the ordinary college professor, who so uniformly refuses all such cases when they present themselves at his clinic, and who takes such pains to refer them back to their family physician. Whoever knew a clinical teacher to forget the claims of the profession by prescribing for well-to-do patients simply because clinical material was scarce, or merely for the reason that such cases were sometimes interesting? If the same practice would only hold good at the hospitals, it would be easy for the ordinary practitioner to protect himself against the robbery of his patients, and to prevent even interesting cases from receiving free treatment in such institutions. We are compelled to say, however, that despite the best intentions on the part of hospital managers, and a most earnest desire on the part of the medical staff to protect the interests of the general practitioner, occasionally an interesting case finds admittance, occasionally a good-paying patient is lost to some family physician, and occasionally the patient himself will make the profession feel under obligations to him for the splendid opportunity of studying his case. But every one in or out of the hospital knows that this is such an exception with patients of the paying class, that it is unworthy of serious consideration in connection with the present abuse of the pay system in hospital management here, or of the abuses of the prospective system in London.

### A SANITARY INSPECTION OF OUR PUBLIC SCHOOLS.

So much has been said in these columns of the want of sanitary regulation in our public schools, that we feel almost like apologizing to our readers for referring to the subject once more. We are so firmly impressed, however, with a duty we owe to the public in general, and the school children in particular, that we cannot omit an opportunity of repeating an old story in the

hope that it may be heard at last, and that its moral will be taken to heart. The school children cannot speak for themselves, the teachers dare not, and the Board of Education, which is omnipotent in school matters in this city, says that the sanitary condition of the schools is perfect. This latter assertion would appear to settle the question, but unfortunately it does not, as the fact of frequent inspections abundantly prove.

For years the Board of Education has refused every reasonable appeal to remedy defects in ventilation, in heating, in lighting the buildings, and in caring for the water-closets outside. The only answer that has been vouchsafed to such requests has been that the schools are in good enough condition, and that no change is necessary. Several members of the Board have, by virtue of the emergency, created themselves authorities in sanitary matters, and there has been a dead-lock to any impartial investigation of the real merits of the question. When we consider that the Board is managed in the interests of a political ring, and that it is quite necessary that the ignorance, neglect of duty, and stupidity of said Board should not be brought to light, the outlook towards reform is quite unpromising. We are encouraged, however, in seeing that a new and powerful element is at work to bring about a change in the management of the affairs of the Board. The *Herald* has caused an inspection to be made of the school buildings, and has recently published a lengthy report upon the subject. No one can read this report, the authenticity and impartiality of which cannot be questioned, without being startled by the disclosures. Only a few of the schools were visited by the inspector, and these were principally primary departments. The latter are invariably upon the ground floor. The rooms are dark, ill-ventilated, crowded, exposed to drafts of cold air on one side and intolerable heat on the other; and are in close proximity to water-closets, which, by the negligence of janitors, are kept in an abominably filthy condition.

Perhaps we cannot serve our present purpose better than by making a few extracts from the report. In Grammar School No. 18 the infants in the lower seats of the gallery class are "literally roasted," while those on the upper benches "are shivering from the cold draughts pouring directly on their heads and shoulders from the lowered sashes." In another room of the same school "the heating is so defective that upon examination the temperature was found to vary from sixty-five degrees to over seventy-five degrees. No general record is taken. The children are packed as closely as possible in these rooms. As to the floor and air-space, as required by the provisions of the by-laws of the Board of Education, no attention whatever is paid, the reason given being that it is impossible under the present packing system."

Although Grammar School No. 69 is a new building, having been only opened in the latter part of 1876, we learn that "the children in the gallery classes are in the same condition as in the other schools—are dangerously close to the radiators on the one side, and exposed to the draughts from the open windows on the other. The thermometer in this department seems to be at a discount, as no record whatever is taken of the temperature." Also the "urinals are constructed of wood, being plain wooden troughs, without lining or cover. No means have been taken to prevent the foul odors and poisonous emanations from entering the adjacent class-rooms."

In Grammar School No. 32, in the class-room on the ground floor, adjacent to the water-closets, the air was intolerable, and as a mere coincidence, of course, "several of the pupils were absent on the sick list."

The closets in Grammar School No. 33 were in the same condition as the last schools visited. "In one of the rooms the day before this visit the temperature was as low as 56°. The record of temperature in this school is not kept, as the Principal thought it useless to do so under the present circumstances."

Grammar School No. 70, in Seventy-fifth Street, like all of the preceding, is badly lighted; the staircase, which is of wood, is entirely enclosed, and is extremely dangerous in case of fire; ventilation in some rooms amounts to almost nothing, as all the fresh (?) air attainable is through the hallways, it being necessary to close the windows to keep out the foul odors of the water-closets. The playground is reported to allow not over "one square foot of ground-space for each pupil attending."

But it is useless to rehearse the results of this inspection; suffice it to say that they repeat themselves to a greater or less degree in all the schools visited. Some of the class-rooms are so dark as to compel the lighting of the gas throughout the greater portion of the day.

These facts are not by any means new to us, neither will they be to any one who has given any attention to public school hygiene in this city, but it is a matter of congratulation that they have been presented to the general public in a manner which may invite the attention of the Board and cause it to reconsider its oft-declared assertion that the sanitary condition of the schools is good. Is it not time, in any event, to demand such a change in the administration of the Board as will do away with its stupid opposition to what every one else believes to be reasonable and necessary sanitary reforms? In the Board, as at present constituted, there is no hope for any change. Is it then worth while to change the Board? This may be a question which public opinion may ask the new mayor to answer.

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### REPRESENTATION IN THE STATE MEDICAL SOCIETY.

A GLANCE over the Transactions for 1878, of the Medical Society of the State of New York, brings to light some interesting, not to say curious, facts.

We find first that in the State there are sixty counties, all of which, except Hamilton, have county medical societies, the total membership of which numbers 3,238. New York County has the most members (710), and Putnam the least (14). The different societies are, according to a law passed in 1855, entitled to send representatives to the State Society, the number of delegates being equal to the number of assembly districts in the several counties at the time the law was passed. All of the county societies, with the exception of Putnam, have elected delegates in accordance with this law. Comparing the number of delegates with the total county society membership, we find that the ratio is about 1 to 25. In the practical application of the law, however, notable deviations from this ratio are constantly met with, and in some counties more delegates are elected than in others which have a larger society membership, as will be seen from the following examples: Thirty-one counties whose membership varies from 15 (Rockland) to 58 (Queens), send one delegate each. Thirteen counties whose membership varies from 26 (Columbia) to 42 (Niagara), have two delegates each. Steuben, with 50 members, and Jefferson with 68, have also two delegates each.

Seven counties with memberships from 38 (Saratoga) to 118 (Monroe), have three delegates each. Oneida and Albany Counties, with respective memberships of 94 and 133, have four delegates each, and Erie County, membership 123, has five delegates. Lastly, Kings (278 members) and New York (710 members), have respectively 9 and 21 delegates.

Broome (56 members) and Queens (58 members) have but one delegate each, while fourteen counties with smaller memberships have two delegates each, and two counties, also with smaller memberships, have three delegates each. Queens and St. Lawrence have each 58 members, but the former is entitled to but one delegate, while the latter has three. The greatest contrast, however, is between Queens and Saratoga. The former with 58 members and one delegate, and the latter with 38 members and three delegates. New York County also suffers in comparison with many other counties, for if the average proportion (1 in 25) were preserved, it would have 28 instead of 21 delegates, as at present.

We commend these facts to the attention of those interested in the medical politics of the State.

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TREATMENT OF IDIOCY BY TREPANNING THE SKULL.—Dr. Fuller, of Montreal, removed with the trephine a portion of the skull of an idiot child two years of age, with a view to permit the expansion of the brain, and as a consequence, the development of the faculties. After the operation, paralysis of the arm with general coldness of the extremities set in, but disappeared after a time. The mental condition of the child has improved in a very marked degree since the operation, and, encouraged by this result, Dr. Fuller intends soon to remove another circle of bone.

# Reviews and Notices of Books.

THE PRINCIPLES AND PRACTICE OF SURGERY, Being a Treatise on Surgical Diseases and Injuries. By D. HAYES AGNEW, M.D., LL.D., Prof. Surgery in Med. Dept. University of Pennsylvania. Profusely Illustrated. In two volumes. Vol. I., 8vo, pp. 1,062. Philadelphia: J. B. Lippincott & Co. 1878.

A NEW work on surgery, at a time when there are so many excellent treatises upon the subject, gives rise to one of two thoughts in the mind of the reviewer. Either the author wishes to make a book merely after a particular plan, perhaps, and without originality, or he feels it his duty to present to the profession the results of his experience, and stamp the work with his individuality. How far either or both of these reasons may apply to the present case we shall see as we proceed.

To begin with, its scope is very extended. As this first volume contains over one thousand pages, and is devoted merely to the consideration of the following general subjects: "Diagnosis," "Inflammation," "Wounds," "Injuries of the Head," "Injuries of the Chest and Abdomen," "Wounds of the Extremities," "Diseases of the Abdomen," "Diseases and Injuries of the Blood-vessels," "Ligation of Arteries," "Surgical Dressings" (including bandaging), and "Injuries and Diseases of the Osseous System" (not including dislocations), we can readily infer that volume number two will not be smaller than the present, by the consideration of what remains to be executed, more especially as Dr. Agnew does not intend to omit diseases, injuries, and operations upon the eyes.

The arrangement of the general subjects is eminently systematic and practical, and embraces: 1. Name of Injury or Disease; 2. Anatomical Considerations; 3. Varieties; 4. Ætiology; 5. Pathology; 6. Symptoms; 7. Diagnosis; 8. Prognosis; 9. Treatment; 10. Complications and Treatment; 11. Sequelæ and Treatment. This order is the rule, to which there are some exceptions.

The author's style, though clear, is rather prolix. While we highly commend his minuteness of detail, we must certainly admit that nothing would have been lost, but much gained, by greater conciseness. Especially is this latter remark applicable to the historical details. Nor have we any great love for, nor can we see any special utility in, the introduction of so much that is statistical in such works. We allude particularly to the sixty-six pages of tables on fractures. A plain statement of the author's conclusions would have been far preferable, and would have saved much valuable space.

The introduction, "Surgical Diagnosis," is an excellent article.

Chapter I., "Inflammation," its nature, varieties, terminations, treatment, results and their treatment, opens the book proper. A more lucid exposition of the present views upon the pathology of inflammation we have not had the pleasure of reading. Our author describes its phenomena as due to: 1. "Disturbed nerve-action; 2. Disorder of the blood-vessels and their contents; 3. Passage of the contents of blood-vessels through their walls; and 4. Change in the perivascular tissues of the inflamed parts."

After the pleasure we experienced in the reading of what preceded, we were greatly disappointed to learn that our author is no milk-and-water advocate of general blood-letting or calomel as means of overcoming or limiting inflammation. The very admission of *dis-*

*turbed nerve-action*, which means a *diminution*, and *not* an *increase*, of nervous vitality, is a refutation of the soundness of the practice which employs most powerful nervous and general debilitants. The clue to the author's reason for their employment may be gained from his interpretation of the phenomena of inflammation (p. 55): "The more carefully we analyze and compare the phenomena of normal nutrition and inflammation, the more we are disposed to formulate them into a single compact statement, and conclude that inflammation is *hypernutrition*, carried on under such an extravagant plenum of supply that the germination and mutation of cell-life are generally too hurried to mature, and are therefore unstable and short-lived." *Change the italicized word* to *hypo*-nutrition and the erroneous view immediately disappears; the former says, "put a stop to so much *activity*," whilst the latter says, "tone up the *diminished* vitality."

The various forms of suppuration and ulceration are well treated, and require no special mention. Then come the different kinds of mortification, including hospital gangrene, eight pages being devoted to its history. Hemorrhage and its treatment, the treatment of wounds in all their varieties (including glanders, farcy, malignant pustule, hydrophobia, wounds of snakes, etc., and gunshot wounds) form the subject-matter for Chap. II. This division is excellent in its general and detailed descriptions, and is well and profusely illustrated. Lister's antiseptic plan is described. The "Surgical History of the War of the Rebellion" has been used to excellent advantage on the subject of gunshot wounds.

Chap. III.—"Injuries of the Head" is quite full upon fractures of the skull, concussion and compression of the brain, gunshot and arrow wounds of the head, fungus cerebri, and trephining. The various wounds of the face, salivary fistula, necrosis of the facial bones, excision of nerves in facial neuralgia, and wounds of the neck are also found in this division of the book. Wounds of the chest and contents, and abdomen and its organs, are lucidly treated in Chap. IV., as are also wounds of the bladder, anus, and rectum. The management of artificial anus from a fæcal fistula is also described. Chap. V. treats of "Wounds of the Extremities," and Chap. VI. of "Diseases of the Abdomen." The article on intestinal obstructions needs a greater detail of the symptoms and diagnosis, as well as a more positive and clear indication of the line of treatment to be pursued in special cases. Strangely enough, the author makes no allusion to complete posterior or antero-posterior rectotomy for the relief of rectal stricture. Bougies and the dangerous resort to divulsion, with or without multiple nicks, are alone mentioned. We are surprised at this omission. Fifty-five pages are devoted to the consideration of herniæ. Although unnecessarily prolix, and in spite of some very bad woodcuts, the author has given us a very good and valuable article upon this subject. We are especially glad to see that he questions the justifiability of operations for "radical cure." The differential diagnosis of herniæ is very clearly made.

Under the head of "Diseases and Injuries of the Blood-vessels," the veins are thoroughly well considered and then the arteries. Aneurism is treated of in a masterly manner—its etiology, pathology, complications, diagnosis, and treatment. We are especially well pleased with the fulness and detail of its diagnosis, being arranged as a differential schema. The author should have detailed, instead of merely mentioning, Balfour's plan of treatment by rest and potassium iodide. The reader would be at a loss to prescribe the proper doses of the salt, since no mention thereof is made in the text, nor is there any foot-reference where the details of the plan may be found. Otherwise the article on treatment is very satisfactory and complete, occupying eighteen and a half pages. Then follows a description of the symptomatology, diagnosis, prognosis, and treatment of special aneurisms.

We call special attention again to the excellence of the differential diagnosis described under each head; in this respect this work is in advance of many of its predecessors, and possesses a purely individual excellence.

Chap. VIII. is devoted to the "Ligation of Arteries." First, the surgical anatomy is given; then the point or points of election are pointed out; finally, the operation is described. This same plan is pursued for each artery. The illustrations in this portion of the book are simply execrable—so exceedingly bad that the author owes his readers an apology for their appearance.

Surgical dressings, including all the various kinds of bandages, are described and well illustrated in Chap. IX.

The last chapter is devoted to fractures and diseases of the bones. Eight pages are allotted to the description of the "repair of fractured bones," and a very excellent exposition it is. The rules for the general treatment of these injuries are judicious. The author's conclusions from his sixty-six pages of tables on pseudarthrosis must receive the support of all practical surgeons. The diagnosis and treatment of fractures are given at length, and no reader can find any fault on the ground that a paucity of apparatus or plans for treatment exists. The author plainly indicates his preferences, but describes all other good methods of the day, gives detailed explanations of the mode of applying the various apparatus, and does not omit certain historical data.

He prefers the weight and pulley (Buck's) apparatus for the treatment of fractures of the femur. We have no hesitation in stating our decided preference for that dressing. We are glad to note: "I do not hesitate to say that a fracture in the shaft of the thigh-bone which is cured with one-half or three-quarters of an inch shortening is a good cure, and gives no room for complaint on the part of the patient; and that the surgeon who obtains this result may walk among his profcssional brethren without being conscious of the least inferiority or want of skill in the management of this class of surgical injury." We protest against the indiscriminate employment of Dupuytren's apparatus in the treatment of Pott's fracture—the only treatment mentioned by our author—in the face of the fact that the plaster-of-Paris is immeasurably superior. The illustrations in this chapter are valuable in the elucidation of the text; they are profuse, but a few of them are quite bad, as figs. 574, 686, 741, 748; nor has the engraver been very happy in his delineation of figs. 757, 776, and 809, although the defect is of little moment.

The remaining articles of this work—periostitis, ostitis, caries, endostitis, osteomyelitis, sclerosis and necrosis of bone, rachitis, osteomalacia, fragilitas ossium, hypertrophy and atrophy of bones—are worked up and illustrated in a thoroughly satisfactory manner. Nineteen pages of "index" complete this volume. The strong points of the author are diagnosis and treatment. Pathology is unravelled to an extent sufficient to elucidate treatment. Each operation is described as it is alluded to (as a rule), which is an ad-

mirable arrangement for the student in particular. While we think that one smaller and less expensive volume, giving the personal observations and views of the author, would, under existing circumstances, have been preferable, we can nevertheless recommend Dr. Agnew's work on its general and individual merits.

# Reports of Societies.

## NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, Nov.* 21, 1878.

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

### THE HISTORY OF SIX CASES OF ABDOMINAL PREGNANCY.

DR. T. GAILLARD THOMAS made a valuable contribution to obstetric surgery by a report of the history of six cases of abdominal pregnancy. Five cases were operated upon, and the patients recovered; the sixth case was still under observation. His experience in extra-uterine pregnancy extended to fifteen cases. Of those seven were tubal, two were interstitial, and six were abdominal pregnancy. For the physiologist and the pathologist many varieties of extra-uterine pregnancy existed, but for the general practitioner at the bedside all the varieties could be placed under three heads: 1. Tubal; 2. Interstitial; and 3. Abdominal.

By rational and physical signs those varieties could be distinguished from each other, and in certain cases the propriety of surgical interference could be based upon the conclusions reached.

The events of abdominal pregnancy were the following:

1. The fœtus thus unnaturally attached might die in the early months of its life, become encysted, and in time be cast off through the rectum, through the bladder, or through the abdominal walls.

2. The pregnancy might advance to the end of the ninth month, when nature would make a persistent effort to expel the child, but, on account of absence of any way of exit, would fail. The fœtus would then be retained, become encysted, and perhaps remain for years.

3. The child, shut up in its unopened shell, might act as a foreign body and give rise to suppurative action, and in that way develop hectic from absorption of septic material. All those events were illustrated by the cases related.

CASE I.—*Abdominal Pregnancy—Death of Fœtus early in Gestation—Discharge through the Rectum, with Recovery of Mother.*

This case occurred in the practice of Dr. H. F. Walker, of New York.

CASE II.—*Abdominal Pregnancy—Death of Fœtus in early Gestation—Discharge through the Rectum, with Recovery of the Mother.*

This case was almost an exact counterpart of the first, and occurred in the practice of Dr. Olcott, of Brooklyn.

Diagnosis of abdominal pregnancy was based upon the following data:

1. All the rational signs of normal pregnancy existed.

2. The uterus, though enlarged, was smaller than it would have been had utero-gestation existed at the time the examination was made.

3. The uterus was lifted up and pushed forward by a soft elastic tumor, which gave none of the evidences of being a hematocele or an ovarian cyst.

4. The uterus did not present the appearance of being occupied by the products of conception when examined by the sound.

CASE III.—*Abdominal Pregnancy—Laparotomy Performed at the End of the Eleventh Month of Gestation, with Recovery of the Mother.*

This case occurred in the practice of Dr. Hadden, of New York.

The uterine cavity measured three and a half inches in length.

The cyst was tapped, and a fluid removed which closely resembled the fluid from an ovarian cyst. It was submitted to an eminent microscopist for examination, who reported that it contained corpuscles which he believed to be ovarian. The diagnosis of abdominal pregnancy was based upon the following data:

1. The existence of nausea and vomiting during the early months of the patient's illness. Those gave place to

2. Distinct fœtal movements.

3. The presence of pigmentary deposit in the linea alba and in the areola of the breasts.

4. The presence of a large but empty uterus, without evidences of inflammation.

5. The existence of a large solid body, which rolled about freely in the cavity of the abdomen.

When the operation for the removal of the fœtus was performed the placenta could not be seen; but in the light of his experience in a case of tubal pregnancy, in which he removed the placenta, and the patient's life was nearly sacrificed by hemorrhage, and the additional fact that a slight scratch of the peritoneum in the present case gave rise to troublesome hemorrhage, Dr. Thomas decided to let the placenta remain undisturbed. A drainage tube was placed in the lower extremity of the abdominal incision. The child was a female, and weighed seven pounds. The funis at one point was surrounded several times by a long hair, which cut off all circulation, and in that manner destroyed the life of the child. The patient did very well until about the fourteenth day, when she had a slight chill, that was followed by a rise of temperature to 104 F.°, and septicæmia seemed imminent. A clot was removed from the abdominal cavity; the cavity was washed out thoroughly and regularly by means of antiseptic injections, and the case again progressed favorably. Five weeks after the operation a small portion of the placenta was found protruding from the abdominal opening, and by careful manipulation the entire placenta was removed.

The following points in the case were regarded as specially important:

1. Had positive diagnosis not been made before the operation, and the procedure commenced as for ovariotomy, the immensely hypertrophied peritoneum would doubtless have been so wounded that the case would have terminated fatally by hemorrhage.

2. Had an effort been made to remove the placenta, disastrous consequences would probably have ensued.

3. Had the abdominal wound been allowed to close by first intention, an imprisoned and fœtid placenta would have led to a fatal issue.

CASE IV.—*Abdominal Pregnancy—Laparotomy at the End of Seventeen Months, with Recovery of the Mother.*

In this case the fluid removed by tapping was submitted to microscopical examination, was found to

contain the ovarian corpuscle, and was believed by the examiner to be unquestionably fluid from an ovarian cyst.

A well-developed girl, weighing nine pounds, was removed at the operation. The cord was twisted upon itself in such a manner as to arrest circulation and cause the death of the fœtus. The placenta was attached to the bladder and the anterior abdominal wall. It was left undisturbed, and the abdominal incision was closed in such a manner as to leave an opening for its escape. The patient rallied well from the operation, and for some time the case progressed favorably. The pulse and temperature were carefully recorded by Dr. Van Voorst, House-Surgeon at the Woman's Hospital, and from his report the following abstract was read:

Three hours after the operation the pulse was 108, and the temperature 99° F.

Twenty-four hours later the pulse was 108, and the temperature 101° F.

At the same hour on the following day the pulse was 103, and the temperature 99¾° F.

At 8.30 A.M. of the same day, the pulse was 120, and the temperature 102½° F.

At 12 noon, the temperature was 103½° F., and at 6 P.M. 102¾° F.

At 8.15 A.M. the following day, the temperature was 103° F. The patient was taken with vomiting.

At 12 M., the following day, the temperature was 103¾° F., and at 3 P.M. the same.

At 3.30 P.M., the abdominal cavity having been washed out with a solution of carbolic acid, the temperature was 100½° F.

At 7. P.M. of the same day the temperature was 103° F., and at 8 P.M. the cavity was again washed out.

At 10 P.M. the temperature was 102⅖° F. The carbolized injection was repeated.

At 11.15. P.M. the temperature was 101½° F.

The case thus progressed, the temperature rising to 102 and 103 or more, and almost invariably falling after each antiseptic injection.

From time to time portions of the placenta were discharged as the cavity was washed out, and finally the patient was permitted to return to her home, with a small, hard portion of the placenta still remaining attached to the abdominal wall. She was able to continue the injections herself. The placenta was finally entirely discharged, and a complete recovery made. The case illustrated the great value of antiseptic injections.

CASE V.—*Abdominal Pregnancy of Twenty-two Months' Standing—Fœtus delivered by Laparotomy, with Recovery of the Mother.*

The case occurred in the practice of Dr. Coates, of Connecticut, and had been published in full in the volume of Transactions of the Connecticut State Medical Society. The operation was performed at the Woman's Hospital. The tissues were severely lacerated by forcible removal of many of the bones.

Special attention was directed to the point that hereafter, in a similar case, instead of tearing the bones out, he would remove those only which could be easily taken away; then, leaving the abdominal wound open, he would keep up antiseptic injections, and await their spontaneous discharge.

CASE VI.—*Abdominal Pregnancy now advanced four Months, and under Observation.*

The patient was a woman thirty years of age, and under the immediate care of Dr. Franklin, of New York.

The diagnosis of abdominal pregnancy was based upon the following conditions:

1. The existence of all the ordinary signs of pregnancy.

2. The existence of a painful tumor behind the uterus.

3. The expulsion of deciduous membrane without abortion.

4. Displacement of the uterus by a tumor, which gave none of the evidences of hematocele, ovarian cyst, or fibroid tumor.

In watching the case Dr. Thomas was governed by the principles, that although he had successfully operated in the cases related, he had not resorted to operative interference without good reason to believe that delay would be dangerous. Operative procedure should be delayed until nature pointed to the channel of extrusion which she selected.

In the case under observation the tumor seemed to be burrowing downward, and that tendency might make it possible to remove the fœtus through the vagina in the event that surgical interference became necessary.

Commenting upon the cases, Dr. Thomas remarked that, if they were reported simply as six cases of abdominal pregnancy, they would lead to erroneous conclusions, for surely it might be inferred from the results that extra-uterine pregnancy had been bereft of its old-time dangers. But the cases were not so reported.

Of the remaining *nine* cases of extra-uterine pregnancies, two were interstitial. Of these one died, and one recovered only after passing through a most dangerous surgical interference. The remaining seven were cases of tubal pregnancy. Of those six died, and one survived only after submitting to a capital operation, which of itself might have destroyed the patient's life.

With reference to the time for surgical interference in cases of abdominal pregnancy. it was often wise to allow the process to continue until the time of full development of the child and await the efforts of nature.

But suppose it was pretty certain that the woman was carrying a dead child, was it wise to resort at once to surgical interference? In answering the question the following facts were to be taken into consideration: one danger attending operative interference was hemorrhage. The longer the placenta was allowed to remain, the more certain was it to undergo such changes as rendered hemorrhage less liable to occur when operative interference became necessary. Another danger was septicæmia. The more thoroughly the fœtal envelopments became atrophied, the less the danger from that complication.

No fixed rule applicable to all cases could be given. The following were given as general rules to guide us in the management of cases of abdominal pregnancy:

1. Before full term, if the child was alive, its growth might be carefully watched with the hope of being able, at the end of the ninth month, to deliver by the operation of laparotomy a living child, and also of saving the life of the mother.

2. Should the child die early in abdominal pregnancy, delay was advisable, but it should not be carried to the development of hectic and septicæmia.

3. At full term it was doubtless the best rule to await the evidence of constitutional disturbance, and then to meet its development promptly by operative interference.

The paper being before the Academy for discussion,

Dr. W. T. Lusk remarked that the success obtained in the cases reported was most astonishing. It would seem from all statistics which had been furnished that to wait was the proper course to pursue, but Dr. Thomas had resorted to surgical interference when it seemed necessary, and all must agree that, from the results obtained, a serious revision of our views upon the subject must be made.

Dr. Lusk referred to the fact noted by Dr. Thomas, and also by Spiegelberg at about the same time, namely, that the sac became attached to the abdominal walls so that when the incision was made it entered the sac directly.

It did not always happen, however, that such attachment took place, so that the opening was directly into the sac, and reference was made to a case illustrating that point. The patient finally recovered from the operation, but only after a long period of suppuration and an attack of septicæmia. She died soon after of phthisis.

With reference to cases in which the child was living at the time the operation was performed, there had been reported eight cases in which living children had been delivered, and the lives of four of the mothers were also saved.

Dr. Lusk also thought there was no question but that one of Dr. Thomas's cases would have terminated fatally had it not been for the most efficient after-treatment and the benefits which the patient derived from his large experience in ovariotomy.

Dr. Fordyce Barker remarked that one of the most important points alluded to by the author of the paper was the results of the surgical operation. They were such as rendered all rules with regard to these cases more or less doubtful at the present time. There were two points in the method of procedure which were to overturn the value of preceding statistics with reference to operative interference in cases of abdominal pregnancy.

One was, leaving the placenta *in situ* after the operation. It was generally accepted at the present time, by the most advanced men, that the safety of the patient depended greatly upon the fact of leaving the placenta undisturbed.

The second point was the great value of the subsequent antiseptic treatment.

Those two points were sufficient of themselves to change entirely the future results of this operation, consequently we might say that past statistics were at the present time really of but little value as a guide to the management of this class of cases.

To the conclusions reached by Dr. Thomas, Dr. Barker gave his hearty concurrence. To be sure, many cases were seen which terminated satisfactorily by the efforts of nature; but that fact did not in the least invalidate the value of surgical interference.

The advancement which had been made in surgery and in the after-treatment of important operations was such as enabled us to obtain results which would not even have been dreamed of years ago. To the cases referred to by Dr. Lusk, Dr. Barker added four, already reported, in which the life of the mother was saved by surgical interference.

Reference was then made to two cases of abdominal pregnancy occurring in his own practice, which were cured by nature, the fœtus being discharged through an opening in the abdominal walls in the left iliac region.

A third case was referred to, which had been diagnosticated by several eminent surgeons of the city as cancer of the rectum. It proved to be a case of abdominal pregnancy, with an opening into the rectum through which the fœtal bones were discharged. A recto-vaginal fistula was also formed in the same case.

Further reference was made to a case, reported several years ago at the Medical Society of the State of New York, by Dr. Parkhurst, of Herkimer, in which the fœtus was carried fifty years, and then removed at post-mortem examination.

In conclusion, Dr. Barker expressed his firm belief that the success which would be obtained hereafter by adherence to two principles, namely, leaving the placenta undisturbed and adopting a judicious antiseptic treatment, would entirely revolutionize the statistics which had been published upon the question of operation in cases of abdominal pregnancy.

Reference was made by Dr. Sell and Dr. Mundé to a case which occurred in the service of Dr. Brown, in one of the Vienna hospitals.

The Academy then adjourned.

## NEW YORK NEUROLOGICAL SOCIETY.

*Stated Meeting, December* 2, 1878.

Dr. J. C. Shaw, President, in the Chair.

### CERVICAL PACHYMENINGITIS.

Dr. V. P. Gibney read a brief paper, in which he reported two cases of cervical pachymeningitis. The following is an abstract of the histories:

Case I.—*Pachymeningitis Cervicalis Hypertrophica occurring in a Lad—Cervical Paraplegia, with General Paralysis almost Complete—Case still under Observation and Progressing Favorably.*

The patient, a boy æt. 10½ years, was admitted to the Hospital for the Ruptured and Crippled, August 22, 1878.. His family history was exceptionally good. He had been considered a delicate child until he was eighteen months old. From that time until one year prior to his admission to the hospital he had enjoyed fair health and was free from any paralysis or deformity. In August, 1877, he was pushed against a pile of lumber, striking his back in the lower spinal region. It was not a severe injury; he complained very little, and his mother was unable to find any bruise. The immediate effect passed off within twenty-four hours, and nothing was complained of or observed until the January following, when he had a paroxysm of shooting pains in the back. For a period of two weeks the paroxysms were frequent, and were most severe at night. Relief then came, and he seemed perfectly well until the beginning of June, 1878. Without known provocation, he then began to bend his neck forward in walking and complained of pain post-cervical. In the month of July considerable pain and tenderness, associated with a peculiarity in his walk were observed, and there was also a moderate degree of skoliosis. There was also a cervico-dorsal prominence, though slight and uniform. There was no angular deformity. When admitted to the hospital in August the following symptoms were recorded: a stooped position, the head deflected forward more than twenty degrees from the vertical bearing, a moderate dorsal skoliosis and an unusual degree of care in walking or sitting. There was no angular prominence at any portion of the spinal column, no tenderness on pressure over the spinous processes—though that had been a prominent sign—and no tenderness on concussion.

On percussion over the posterior wall of the pharynx the patient complained of pain, yet no tumefac-

tions or bony irregularity could be discovered in that region. Motion in the upper cervical region was normal, but was limited in the lower cervical and the upper dorsal.

No reliable signs of a spondylitis or of a spondylarthrocacia could be detected. The thorax presented some rachitic changes anteriorly. A head-support was applied, and with that the deformity was nearly overcome. Cod-liver oil and a tonic were prescribed.

During the following month he did very well. In the month of October the head showed a great disposition to fall forward; the head-support became irksome; the patient slept poorly considerable of the time, and the pain and tenderness in the cervico-dorsal region increased. He took to his bed; his chin, in the lateral decubitus, rested upon the sternum. He could not be induced to change his position, and, if left undisturbed, made no complaint. He had vomiting, and the tongue was heavily coated. Ergot, iodide of potassium, and vesication, were the special medicinal measures employed. On the *first* of November there was a decided improvement; but on the fourth he was again worse, and on the 11th there was loss of power absolute in the arms, and partial in the forearm and hands, and there was almost entire loss of power in the lower extremities. The reflexes were exaggerated. Anæsthesia on posterior surface of thighs well marked. Pulse, 120; respiration, 20; temperature, 99¼° F.

Nov. 14th. Exaggeration of reflex abnormality of sensibility remained. The limbs frequently jerked on the slightest provocation, and assistance was required to restore them to the desired position. Urine drawn by catheter. Pulse, 112; respiration, 26; temperature, 100¼° F. No appreciable atrophy had occurred. All the muscles acted well to medium Faradic current. The electro-sensibility was perceptibly diminished.

Nov. 17th. Has moved the right arm since yesterday. As the forearms were in pronation the hands exhibited a typical approximation to the *main-en-griffe* of Charcot and Joffroy.

Nov. 20th. Urine had specific gravity of 1012, faintly acid, and contained flaky deposits and phosphates. Temperature, 100¼° F., the highest yet reached.

Nov. 21st. Decubitus dorsal, with lower extremities extended, a position he had not been able to assume since his confinement to bed. Was able to raise both arms from his side to a right angle and to extend the the forearm completely.

Nov. 25th. Epileptiform tremors in legs were marked. He could flex the left thigh with considerable force.

Nov. 28th. Was able to sit up all day, and to use his left arm in feeding himself.

Nov. 29th. Incontinence of urine and of fæces. Electrical responses as good as they were one week ago.

Dec. 2d. No incontinence of either urine or fæces during last two days. Pupils for the first time dilated. Fundus of the eye normal. Sensation in the thighs returning. Ergot and iodide of potassium had entered largely into the treatment. Commenting upon the case, Dr. Gibney thought we were left to accept one of these conditions in making a diagnosis:

1. Was it a spondylitis? The absence of any exostotic growths either on the bodies of the vertebræ anteriorly or on the processes, the history of the disease, and the kind of paralysis, in his opinion, excluded spondylitis.

2. Was it spondylarthrocacia, or Pott's disease of the spine? The history of a fall without evidence of external violence would suggest very forcibly vertebral disease. Still, within twenty-four hours all tenderness and immediate effects of the fall had subsided, and he was perfectly well and free from deformity for *three months*. The fall was charitably considered as an improbable factor in the etiology of the disease present. It was to be remembered that the first real signs of the disease began in January, 1878, when colds were very prevalent, and, in the absence of any known exciting cause, it was assumed on circumstantial evidence that he contracted a cold, and that the effects of the cold were confined to the cervical spine. The shooting pains about the head and neck were paroxysmal and severe; they lasted about two weeks, and the patient was relieved. Then for five months he seemed perfectly well. Vertebral caries did not act in that manner.

Again, when the torticollis appeared, the deflection of the head was forward, and not backward, as was the rule in torticollis from vertebral disease. Since he had been under the doctor's observation, over three months, tenderness on pressure over the spinous processes had been nearly continuous. As a *rule*, to which there were but few exceptions, that sign was not present in spinal caries. Furthermore, extension and support of the head were intolerable. On those grounds Pott's disease was excluded.

3. Was it a case of pachymeningitis cervicalis hypertrophica? From the symptomatology as described by Charcot and Joffroy, from the exclusion of the two diseases mentioned, and from the kind of paralysis—that which belonged to spinal compression, Dr. Gibney arrived at that diagnosis. The case as yet was not complicated with any notable cord-lesions. There was no surety, however, that such lesions would not follow sooner or later, but it was hoped that the iodide of potassium would save the patient from their development.

CASE II.—*Pachymeningitis Cervicalis Hemorrhagica—Partial Recovery.*

The patient was a girl æt. 17 years, and of German parentage. Family history unreliable. The history of the case was that, in September, 1874, she went to bed in good health, slept well, but about half an hour after rising on the following morning, and while at work, she felt a sharp, sudden pain all over the "front walls of her chest," and moderate pain in her back. The pain passed off in about a minute. She had no vomiting, and probably no fever. Shortly after she tried to sew, but found it impossible. At about that time she experienced a numbish sensation in the arms and the forearms, and creeping down the body and lower extremities. She attempted to drink her coffee, but the cup fell from her hands. She tried to walk, but failed in the attempt. By noon she had complete paralysis of all four limbs, and suffered from severe pains in her thighs. She was carried to the German Hospital, and had to be fed for three months, during which time she was unable to sit up or to walk. Her urine was drawn with catheter, and the bowels moved involuntarily. She had bed-sores. She remained in the hospital thirteen months, and within that time there was considerable improvement, so that she could use her extremities, and the incontinence ceased. August 20, 1877, when she came under Dr. Gibney's observation, he found no evidence of disease in the thorax, the teeth were in good condition, the tongue and uvula normal, hearing good, and fundus of the eye normal, and no trouble with the urinary organs. Menstruated twice when sixteen years old, but never since. General health

good. No spinal tenderness or kyphosis or skoliosis. There was neither paralysis nor atrophy of the lower extremities. The right arm was normal, but the forearm was somewhat smaller than the left. There was complete atrophy of the thenar and the hypothenar eminences, and the hand and the wrist presented the classical *main-en-griffe*. A detailed account was then given of the reactions obtained by the use of the Faradic and the galvanic currents.

Dr. Gibney believed that the suddenness of the onset of the attack and the result were so characteristic of meningeal lesions as to leave no room for difficulty in diagnosis. As to the cause of the hemorrhage, he had no means of knowing, and in a girl of that age it was a matter of speculation.

The paper being open for discussion,

DR. E. C. SEGUIN remarked that the cases reported, he thought Dr. Gibney would admit, were characterized by a certain degree of acuteness in their development, which was rather against the course of chronic pachymeningitis cervicalis.

He thought that the first case was open to a *fourth* supposition in diagnosis, and that was common meningo-myelitis. The development of that disease was frequently subacute, and there was a combination of symptoms, such as irritative neuralgic pains in the spine, and perhaps in other parts of the body, and sometimes involvement of the spinal cord.

With reference to the second case, there could be an expression of stronger doubt as to its being one of pachymeningitis, even of the hemorrhagic variety, for the dura mater was a tissue which was not liable to hemorrhagic infarctions. With but few exceptions pachymeningitis hemorrhagica, whether cerebral or cervical, was in the first place a pachymeningitis which gave rise to certain symptoms, and was followed by a clot in the newly-formed tissue.

Another objection was the well-defined paroxysmal symptoms without the occurrence of spasmodic symptoms so frequently accompanying the escape of blood between the arachnoid and the dura mater. If there was an escape of blood into the healthy dura, it was difficult to say why it should be localized, and not extend up and down. As to the pathological condition which might give rise to the symptoms of the second case, Dr. Seguin suggested hemorrhage into the gray matter of the cord. Another possible explanation would be acute red softening of the spinal cord. That was an exceedingly rare lesion, but he had seen one case, and in that instance the diagnosis of hemorrhage into the spinal cord had been made.

His main reluctance to accepting the diagnosis given by Dr. Gibney was the acute and subacute course of the two cases.

DR. GIBNEY remarked that he excluded meningo-myelitis because there was no elevation of temperature whatever. As to the suddenness of the invasion, it was to be remembered that in the first case the patient suffered from an attack some eight or nine months prior to the appearance of the paralysis, which lasted for only two or three weeks, and then there was an apparent recovery. Following that were other attacks, which were accompanied by pains for three or four months, which agreed well with the painful stage of the disease as described by Charcot and Joffroy.

With reference to the second case, the diagnosis was based upon the tremors present three or four years subsequent to the sudden attack, the contractures, the position of the hand, and the method of invasion. He thought there was hemorrhage into the dura mater, and that it probably involved the cord itself.

DR. SEGUIN remarked that the symptom *main-en-griffe* did not necessarily indicate the existence of pachymeningitis cervicalis. It was simply an expression of paralysis of muscles supplied by certain nerves, without reference to the situation of the lesion.

### TREATMENT OF CHRONIC TRIGEMINAL NEURALGIA.

DR. E. C. SEGUIN reported three cases of chronic trigeminal neuralgia which were cured by medicinal treatment (see p. 6).

The paper being before the Society for discussion,

DR. GREY inquired whether any member had tried the galvanic current in the treatment of trigeminal neuralgia. He referred to a case reported by Niemeyer, in which cure was effected by the use of the galvanic current after all other known means had failed; and also to a case under his own care, in which violent neuralgia of the thigh was relieved by the same means and under like circumstances.

DR. KINNICUTT remarked that he had employed the galvanic current in the treatment of acute cases of trigeminal neuralgia, and that relief had been afforded, but it was only temporary.

DR. SEGUIN remarked that the galvanic current was a measure which should be used more than it was, but there were practical difficulties which to a very great extent rendered it unavailable. It was rare that the physician could spare the necessary time, or the patient meet the necessary expense, attending that method of treatment.

DR. SPITZKA remarked that heretofore, in cases of trigeminal neuralgia, when he had not been able to discover indications for treatment arising from reflex causes, or central disease, or constitutional phases, he had told his patients that he could do nothing for them whatever; but, from the results obtained in the cases reported, he should be encouraged to adopt the plan recommended by Dr. Seguin. He then asked the following questions:

1. What were the indications for the use of aconitia in the treatment of cases of trigeminal neuralgia?

2. Why was the term epileptiform used in connection with one of the cases reported?

3. Should not the diplopia, the unequal pupils, the loss of memory in one case, be regarded as symptoms pointing to some general central disease?

With reference to his own experience in the use of aconitia in other painful affections, pushing the remedy until its physiological effects were produced had seemed to be a rather dangerous procedure in some patients.

In one case he had pushed the remedy so that it simply produced a slight tingling, and had not strong measures been resorted to the case would have terminated fatally.

DR. SEGUIN in reply stated:

1. That he knew of no special condition which indicated the use of the aconitia.

2. He used the term epileptiform because it best described the suddenness with which the attacks came on.

3. He did not believe the patient referred to had any central disease, for he had tested him in every direction with the view to such discovery, and had found nothing.

With reference to impairment of memory, it could reasonably be expected that the memory of a man, who for ten years had suffered untold agony, might be affected.

The contracted pupil was upon the same side with the pain, and was due probably to simple irritation of the trigeminus.

The diplopia was present only while the patient was taking medicine.

Dr. Kinnicutt remarked that he was induced to use ergot in the treatment of one case of trigeminal neuralgia of eight years' standing, because the nitrite of amyl always produced bad effects. The result obtained by the use of the ergot, given in doses of one drachm and a half of the aqueous extract in the course of twenty-four hours, had been favorable.

Dr. G. M. Beard remarked that the conclusions arrived at by the author of the paper harmonized with his own convictions regarding the use of powerful remedies and pushing them until marked physiological effects were produced. The idea was old, it was true, and there had also been a reaction against it which had been carried too far. The principle was illustrated in the treatment of syphilis and other diseases in which the best results were obtained by producing the physiological effects of powerful drugs.

With regard to the use of electricity in the treatment of the disease under consideration, judging from his own experience, the prognosis certainly was very bad, while in the treatment of ordinary trigeminal neuralgia the prognosis was very good. He had no recollection of ever having cured a case of epileptiform neuralgia by the use of electricity. He had not been able to confirm the German case referred to, and regarded the result obtained there as an exception, the like of which might not be seen in a thousand years to come. Such was not the fact, however, with reference to ordinary trigeminal neuralgia.

Dr. Beard thought all would agree that neuralgia was only a symptom, and that when twenty cases were treated, we might in reality be treating twenty different diseases. Therefore it was not safe to generalize with reference to the action of any special remedy.

With reference to the use of gelseminum, his custom was to begin with doses of from three to five drops, and gradually increase. If no idiosyncrasy was discovered, he ceased to fear the ill effects of the remedy, and did not hesitate to push its administration to full doses.

Dr. Seguin wished to record his favorable experience in the use of phosphorus in the treatment of ordinary trigeminal neuralgia. He had obtained more satisfactory results from its use than from the use of gelseminum.

Dr. Grey remarked that he had been made aware of the danger of pushing powerful remedies until they produced their full physiological effects, and referred to cases of chorea in which he had seen dangerous symptoms produced by the use of arsenic.

Dr. Shaw shared in the opinion that pushing remedies until they produced full physiological effects was the true method for obtaining the most satisfactory results in the treatment of many diseases.

Dr. McBride directed attention to the importance of determining that no cardiac disease was present in cases which were to be treated by the use of aconitia.

The Society then adjourned.

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Iron which Will not Rust.—Prof. Barff has discovered that if iron be subjected to the action of steam having a temperature of 1500° F., it is covered by an incorrodible coating of the magnetic oxide, giving the finished article a dull-black appearance, susceptible of a slight polish. Salt or fresh water, vegetable acids, and all other ordinary oxidizing agents have no effect on the iron prepared by Barff's process. It should be called "Barff's iron," after the inventor.

# New Instruments.

## A CONVENIENT INHALER.

Dr. J. O. Roe, of Rochester, N. Y., has devised a convenient and inexpensive inhaler, which promises to give very general satisfaction.

The apparatus is made of Japanned tin, and, as will be readily seen, consists of a lower portion or receptacle for the hot water and medicated solution, and an upper portion or cover. The lower portion is simply a large cup holding about a quart, with a head or mark to indicate the proper amount of fluid to be used. The cover is essentially an inverted cup fitting inside of the lower and extending about two-thirds to the bottom, with a flange around the base which fits the edge of the other. The portion of the cover above the upper border of the cup tapers sufficiently to admit the attachment of a flexible tube, which may be of any required length, with a simple mouth-piece at the extremity for inhaling. The double-valve mouth-piece and the thermometer of Mackenzie are dispensed with, as they are ordinarily quite unnecessary and render the inhaler more complicated and costly. In the flange of the cover, and also near the edge of the rim, numerous small holes are punctured for the passage of air.

Roe's Inhaler.

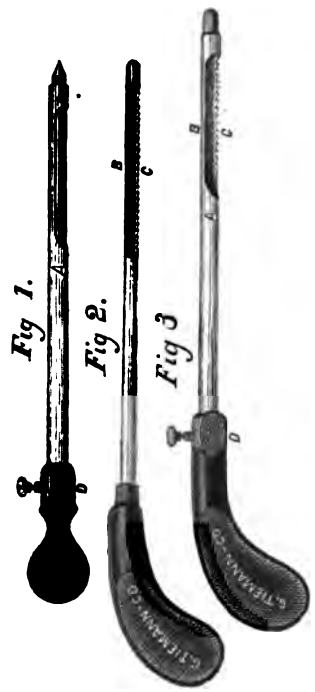
The inhaler is used as follows: The cover (*A*) is removed and the cup filled with hot water (from 160° F. to nearly the boiling point, as required) up to the head or mark (*C*) on the side of the cup; the medicine or medicated solution to be inhaled is then put in, and the cover replaced, when the inhaler is ready for use. On inhaling, the air is drawn or exhausted from the cavity or air-chamber in the upper portion of the cover above the fluid rushing in again through the openings in the flange at (*D*) and drawn through the corresponding openings in the rim at (*E*) and up through the solution, as shown by the direction of the arrows, breaking up into fine bubbles on the surface and passing on to be inhaled, carrying the medicated steam with it. The apparatus is manufactured by Geo. Tiemann & Co., N. Y.

## A NEW SUBCUTANEOUS SAW, KNIFE, AND BONE RASP.

By GEORGE F. SHRADY, M.D.

A short time ago, having occasion to operate upon a case of ununited fracture of the tibia and fibula, I felt the want of a subcutaneous saw and rasp which would bare and roughen the ends of the fragments at the same time there would be no danger of injuring the soft parts. I accordingly devised this instrument, which was made for me by Mr. Stohlmann, of the firm of Geo. Tiemann & Co. It could not, however, be finished in time for use in the case for which it was designed; in fact, it is just now completed. This statement is perhaps necessary to explain why I have not, as yet, made a trial of it in a similar case or in any other of the many operations which may come within the range of its adaptability. I believe, however, that there can be no doubt of its perfect working and of its extended usefulness, and accordingly offer it to the profession.

As will be seen by the cuts, the instrument consists of a trocar, fenestrated canula (Fig. 1), and a




staff (Fig. 2), with handle and blunt extremity. A portion of this staff at a short distance from the extremity is flattened, one edge (B) being made into a knife-blade, and the other edge (C) being provided with saw-teeth. This staff (Fig. 2) is intended to replace the trocar in the canula after the latter is introduced. When in position (Fig. 3) either the saw (C) or the knife (B) edge of the shaft, according to the way the latter is turned, corresponds with the opening in the canula. The saw or knife can then be worked to and fro within the canula by a piston-like movement, the canula being steadied by grasping the flange (D) at its base. If it be necessary to work the instrument as an ordinary blunt-pointed sheathed saw or knife, the shaft can be fixed in the canula and made into one piece by a thumb-screw in the handle. The portion of the canula at the back of the opening is made extra strong and is of the same thickness as the blade, so that in sawing there is no stoppage to the passage of the instrument through any thickness of bone. At the risk of prematurely bespeaking its usefulness, I am willing to believe that the instrument can be employed in any operation where it is necessary to use a saw, rasp, or knife upon any bone, or other tissue, under the skin, and through a small opening. In ununited fracture the ends of the bones may be perforated with the trocar, may be roughened by the saw or rasped by the knife. Subcutaneous osteotomy may be performed by it, as for instance, Adams' operation for anchylosis of the hip, Ogston's operation for genu-valgum, Marsh's operation for "bow-legs," the various excisions, and also operations upon the jaws, upper and lower,—in fact upon any bone the surface or edge of which can be reached by a trocar. The soft parts are protected from injury, no matter which way the instrument may be worked. The saw-blade is blunt at its extremity, and is guarded on all sides except on its limited cutting surface. The same may be said of the knife. The working of the saw to and fro in the canula is sufficient in sweep to insure the division of any bone having a diameter less than the length of the cutting edge. Still, as this process is much slower than when the saw is used in the ordinary way, it is perhaps better to restrict its employment to operations on the smaller bones, to cramped localities, and to situations where there is special danger of wounding some neighboring vessels. All that is necessary in using this saw is to thrust the trocar and canula into the limb, the fenestra of the canula being alongside of the bone upon which the operation is to be performed. The trocar is then withdrawn, the staff introduced in its place (Fig. 3) and worked as already described. The instrument is made of different sizes, to suit the different purposes for which it may be employed.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from December 22 to December 28, 1878.*

Tilton, H. R., Major and Surgeon. Par. 5, S. O. 245, A. G. O., Nov. 12, 1878, granting him an extension of his leave of absence for two months, is amended to grant said extension on surgeon's certificate of disability. S. O. 274, A. G. O., Dec. 21, 1878.

Kinsman, J. H., Capt. and Asst. Surgeon. Leave of absence extended one month. S. O. 104, Div. of the Atlantic, Dec. 23, 1878.

## Medical Items and News.

Vaccination in the Public Schools.—Since the commencement of the present school year, eight thousand eight hundred and twenty-seven vaccinations have been made by the Health Board upon the children of the public schools.

Yellow-Fever Fund.—Among the earliest subscriptions to this fund was the handsome sum of one hundred dollars from Messrs. Wm. Wood & Co., medical book publishers of this city. Dr. Thomas L. Neal, of Dayton, Ohio, writes: "There is a small fund unexpended here from the Yellow-Fever Relief Committee, which the Treasurer informs me can be allowed to go to the relief of the widows and orphans of deceased physicians. Dr. Minor, of Cincinnati, promises to try and secure any remaining fund there may be at that place."

# Original Lectures.

## AVOIDANCE OF PAIN IN THE DRESSING OF SURGICAL CASES. HYPERDISTENTION OF ABSCESSES.

BEING REMARKS BY

GEO. W. CALLENDER, F.R.S.,

SURGEON TO ST. BARTHOLOMEW'S HOSPITAL, LONDON.

Delivered at the Bellevue Hospital Medical College, N. Y., Jan. 4, 1879.

(Phonographically reported for THE MEDICAL RECORD.)

(Mr. Callender, having been invited by Dr. Lewis A. Sayre to occupy his lecture hour, and having been appropriately introduced, spoke as follows:)

GENTLEMEN:—I cannot but be pleased by the too flattering manner in which you have received me. I came here to mark, to listen, and to learn; but perhaps, as I am now present with you, and as the old saying has it, "the looker-on often sees most of the sport," I may perhaps venture to offer some remarks upon two or three points which have attracted my attention during the brief time I have been among you.

And first, in reference to your hospitals. Those that I have seen have all been well and efficiently managed, and their general excellence seems to me beyond all praise. I have noticed with satisfaction the great care exhibited on all sides for the welfare of the patient. I cannot express myself too strongly respecting your clinical teaching, which, so far as my experience goes—and you must know that I have visited all the great centres of medical learning in Europe—is unsurpassed anywhere. And then there is another point which interests me, and it is this: that, as I hope I may safely say it is in my own country, so I am sure it is in this, that the well-being of the patient is the first consideration. The interest shown in this direction by the united and harmonious efforts of the visiting staff, the house staff, and the nurses, stand out as a great and shining light. I am glad to find the surgeons here are not cramped by any preconceived view or prejudiced by any treatment, but are willing to try any plan or method, and to be influenced entirely by the results obtained under their own observations.

If I may be permitted to detain you a few moments, I think I may say modern surgeons have quite come to this point respecting all of their cases—I allude more particularly to surgical cases and operations—that patients may be expected to convalesce as a matter of certainty; and, as far as life is concerned, the results are invariably good. But there is another point which, apart from saving life, more particularly interests me, and to which I have been giving attention of late, and that is, patients should convalesce with certainty; but not only this, but so convalesce without an ache or a pain. I think I may venture to say that even so serious a case as the amputation of any one of the members may be conducted, from first to last, without causing the patient any pain. You may think I dwell too much upon details, but it is, and I have always held that it is, on the careful attention to such minutiæ that the success and perfection of our treatment depends. May I be allowed to offer two or three illustrations as an explanation? You all know that certain little patients come under our notice who are suffering from what is commonly called harelip. When we operate upon such patients in my country—and I presume it is pretty much the same in yours—we relieve the patient of much suffering by placing him under an anæsthetic. For such little children we use chloroform; for such grown-up children as ourselves, we use ether. Besides the irritation produced by the wound, it is common to draw the margins of the wound together, and support them by strips of adhesive plaster drawn across the face. This procedure becomes a source of discomfort to the child, who cries and complains, as would be expected. But now, gentlemen, to avoid this, and to save that little one from a considerable amount of pain, it is my constant practice—and I trust you will not think me egotistical in frequently referring to my personal experience—to apply such strips to the face of the child for some three or four days prior to the operation. The child thus becomes accustomed to the restraint, and when it comes out from under the influence of the anæsthetic, it suffers, from the reason of its being so accustomed to this restraint, less than would otherwise be inevitable.

Now, I dare say that few of you think, unless your attention has been directed to the subject, of the great discomfort that is caused by the removal of adhesive plaster from a surface upon which hair may happen to grow. Perhaps some of you may have chanced to have had plaster applied to some such parts of your person, and if so, your experience is far less pleasant upon its subsequent removal. I would recommend you to so apply plaster as to never necessitate its removal until the treatment is complete. Now, take a breast amputation, and let us suppose that we secure the dressing by means of straps of plaster. Plaster so used should never be removed until the treatment is complete. When the dressing has to be changed, you are to cut out the space over the dressing, at the point where it leaves the wound and passes on to the skin. Renew your dressing, and rejoin the divided plaster by means of a strip laid over that first applied. And this may be done again and again every successive dressing, leaving the first applied plaster still adherent to the surfaces of the integument. Although this seems like a small matter, yet I assure you that these small matters materially add to the comfort of the patient, and to your success as a practitioner.

Another small matter. We are often called upon to deal with large wounds resulting from the removal of mammary tumors. It is a common practice to retain the arm across the anterior portion of the chest by means of a bandage lightly passed around the neck. Now, when the time comes for dressing the wound, some twenty-four or forty-eight hours after the operation, the bandage is loosened and the forearm and the arm are removed to the side of the body. And what takes place? The muscles have been restrained for some time; when this is done they resent the movements; you will feel them quivering under your hand. First, the biceps, and then the pectoral muscles quiver under the movement; and the patient with a great start cries out with pain. Now, why is this? Why, irritated by the action of the biceps, the pectorals, from their insertion to their attachment, are started into action; the whole wound is disturbed. The adhesions are probably rent asunder, and it is no wonder that the patient under these circumstances complains of pain. Now, let me tell you, gentlemen, how all this may be avoided, and in the simplest possible manner; and perhaps Professor Sayre will permit me to use him as a model on which to demonstrate its simplicity. If I want to prepare for the dressing of the wound, I grasp the arm firmly so as to control entirely the biceps. I now take hold of the forearm

and move the arm to the extreme of extension, and as I do this I feel the biceps quivering under my grasp; but it is unable to act, and no irritation follows in the pectorals. While grasping the biceps the arm is moved slightly to the side and is now so circumstanced that the dressing may be easily removed. I can from a practical point of view tell you that, by taking this precaution, the dressing may be effected without occasioning the patient the slightest pain. Now let me commend this to you.

Then again, with reference to amputations, not only must the patient be gotten well, but during his convalescence he should be kept free from pain. In the case of an amputation of the lower extremity I place the limb upon a splint and see that it is carefully adjusted and swung; the splint is provided with an arrangement that will allow of dressing the stump without in any way disturbing the parts. I hope I may have an opportunity of showing this instrument to you upon some future occasion. You are all probably acquainted with the manner in which the barrels of our ordinary breech-loading fowling-pieces are dropped, so as to receive the cartridges. In a similar manner a catch placed under a portion of the splint allows of sufficient of that splint being dropped from beneath the stump to permit of the removal of the dressings and of their replacement without the slightest disturbance of the parts, and without giving rise to the slightest pain. I can assure you that in this way you can dress and redress an amputation-stump without the patient's even knowing the applications are being changed. And to show you how carefully these operations have to be conducted, I may add that, if during the change of the dressings, the slightest jar of the apparatus is permitted, the patient will at once recognize the error in treatment by starting of the limb and by complaints of pain.

Now, there are many ways in which pain and discomfort may be induced. I will mention one condition. There are, what I have ventured to write upon, emotional irritations. I mentioned a case of this kind only yesterday, in visiting one of your hospitals, that of a child who had been cut for stone. I will give you another instance in point: A man lay in Kenton Ward, a ward which had come to me by descent, through Sir James Paget and Mr. Stanley. The man had sustained a severe injury of his forearm. The muscles, and tendons, and nerves, indeed all there was to divide, save the bone, had been cut through in a machinery accident. We stitched all these structures together, and I suppose you do the same here; and we are hoping the day is not far distant when not only tendons, but nerves also, may be reunited and made to regain their function. Now, I commonly dress these cases by swinging the extremity by means of a very simple apparatus. I take a slate, or rather the framework of a slate, and to this I attach a pad of sawdust, on which the arm is laid. The arm is then swung by means of pulleys and a bar fixed over the bed, the arm of the patient being counterweighted by means of a graduated tin, filled with shot, so as to exactly balance the part suspended.

In this way the patient can, without an effort, raise or depress the part, and is even allowed sufficient liberty of movement to permit of his getting up and moving around his bed.

Now, although I thought I had made this man as comfortable as he possibly could be, yet he soon became irritable, and his temperature rose to 103° or 104°. There was nothing to account for this, save that he complained of the apparatus, and said that it irritated him. Now, I always attend to the complaints of my patients, and you will always find they have some good reason, or at least, if not attended to, will make themselves ill over nothing at all.

Well, I had to take it all down, and laid his arm simply upon the bed. At once he was relieved, the irritation was at an end, and the temperature fell to the normal point.

Now, gentlemen, I pray you always to attend to the slightest complaints of your patients. If you do not, some slight irritation, such as I have been describing to you, will vex and continue to vex them, which at last may grow into such an irritation as to produce not merely pain, but considerable constitutional disturbance.

But these rough mechanical movements are not the only conditions which give rise to unrest in a wound. In these days, when we endeavor to secure union in a wound by first intention, we bring into close apposition the margins of the wound. But we know that in connection with all wounds there is a certain amount of blood-stained fluid necessarily effused, and if this remains locked up in a wound, what must of necessity ensue? Not only is the patient made restless, and pain occasioned by the swelling caused by the accumulation of the fluid, to say nothing of the risks of some one of those forms of constitutional disturbances which we speak of collectively under the name of blood-poisoning, but, as you can readily understand, the fluid, as it collects, of necessity separates more and more widely the parts, which, if they are to unite by primary union, or by granulation, must needs lie in absolute contact. Now, to avoid this cause of pain and irritation, all wounds must be effectually drained. It matters not what form of drainage-tube you may employ; sometimes a silver tube may be used, or a piece of elastic tubing, or a bit of cat-gut, or that which I very frequently employ, a strip of gutta-percha tissue carried through the depth of the wound; but in some way drainage should be effectually secured, so that all this fluid may have a ready escape, and thus free the patient from the irritation which would otherwise necessarily be induced.

I do not think we have ever sufficiently recognized the great importance of the truths respecting drainage, first enunciated by Chassaignac. I think we are largely indebted to him for introducing the subject to our notice, and of its vast importance I cannot too strongly speak.

As bearing upon this point, I may venture to tell you, that, with the large number of tumors which I have removed in our theatre during the last seven years, there has been but one fatal case.

Of all the breast operations we have lost only one. That, of the greater operations performed upon bone there has not been one fatal case during the same period. Of the amputations which I have performed during this period, which have been some eighty, I have lost only four cases, and one of these, I must in truth, confess, was lost from my own ill-treatment of the case. And here let me add, that I consider it most important that we should always look at home for faults; and before we condemn the constitution of the patient upon whom we operated, or the hospital surroundings, we should ask ourselves whether we may not have committed some errors of treatment by the avoidance of which a more favorable issue might have been attained. In illustration, I may mention, that, at a meeting of our Clinical Society, Mr. Cadge, of Norwich, one of our ablest provincial surgeons, referring to a projected rebuilding of the hospital in that city, in consequence of its unhealthiness, stated that he would not rest con-

tent until he had brought it into the same satisfactory condition as that which I related of St. Bartholomew's. A year later he was able to state, in a lecture published in one of our medical journals, *The Lancet*, that, during the twelve months previous, his practice had been free from pyæmia, and he had, I believe, no fatal cases of erysipelas.

These may seem to you as unimportant details, but I maintain that it is by attention to these that the success of your treatment and of the avoidance of pain will entirely depend.

We have at our annual meeting at St. Bartholomew's an old toast to the health and ease of our poor patients. So far as surgical operations are concerned, I think I may truly say that their health and well-doing is thoroughly insured. It is during their convalescence to guard our patients from pain that I think we should now strive, and I hope I may have made clear to you, at all events, some of the points which, if attended to, may insure also the accomplishment of this.

I really ought not to occupy more of your time, but, to comply with the request of Professor Sayre, I will make a few remarks upon the treatment of abscesses; and, in continuing my remarks, I am reminded of that which happened to me the other day, when I had placed before me some fourteen dishes, which constituted my dinner, and from which I had to complete that which is one of the most important operations of the day. I fear that, just as I was then embarrassed by the multiplicity of choice, so you also may suffer from having so many subjects crowded in so brief a time under your notice. The time is scarcely passed—indeed, if you will refer to any of the works on surgery of the present day, you will find it laid down as a rule that, when you have a patient suffering with an abscess developed in the course of some chronic disease, it is better to leave the abscess to pursue its course, carrying mischief among the muscles, and widely diffusing such mischief in distant parts of the body, because it is stated, that when such an abscess is opened there is risk of grave constitutional disturbance, and sometimes even of inflammation of the abscess sac, leading to blood-poison and to the death of the patient. At the best, the opening of such abscesses was held to be followed by such an increase of the discharge as rapidly to exhaust the patient, and thus to hasten the fatal result; and, no doubt, treated as these abscesses usually were, such consequences often ensued. I now have no hesitation in opening such abscesses, and I may say that it constantly happens that patients are admitted to the wards for the purpose of having such abscesses treated, and within a week or ten days thereafter are discharged, to be again out-patients, the abscess having been opened without the slightest constitutional disturbance or inconvenience to the patient. We effected this by what I have spoken of as hyper-distention—a somewhat barbarous expression, but I believe in medicine we are permitted to make use of such expressions. To effect this we make a lotion of one part carbolic acid to twenty of water, diluted at the time of its use by the addition of hot water, so as to bring its strength to one in thirty. An incision is now made into the abscess; I usually employ one of a crucial shape, about the size of a double-edged scalpel, and the lotion is injected with an ordinary syringe provided with an elastic nozzle. The pus having been first evacuated in the ordinary way, as much as will flow being allowed to escape, and as much more as can be got at being evacuated by means of pressure, as the fluid is forced in and the sac becomes distended, the elastic nozzle expands and fills up the opening, and in this way almost any amount of pressure may be brought to bear upon the distention of the abscess cavity. When distended as far as possible, the lotion is allowed to escape from the cavity, and the injection is repeated again and again until it runs clear from the wound. We then know that the abscess has been thoroughly cleaned out. I do not say it is always possible to effect this, for sometimes we meet with exceptions to the general rule, and find that some muscle or tissue hangs, valve-like, over a portion of the abscess sac, and renders it impossible for us to force the fluid to the extreme limits of the cavity; but such is an exceptional condition, and can only be taken as referring to the general truth that all good rules must have their exceptions. After the distention has been completed, and the drainage-tube is introduced, and the wound is covered with some carbolized oil, lint, and a sheet of gutta-percha tissue, there may be some little discharge, partly of the fluid injected and not evacuated at the time of the operation, which may be mingled with pus for a few days; but presently the abscess contracts to a mere sinus. I do not mean to say that this sinus can be always closed; the treatment does not profess to cure the carious condition upon which the abscess may depend; and so long as a cause of irritation exists, whether deep carious bone or dead bone, or whatever else may be the cause, the sinus will remain as a canal along which the discharge necessarily goes. But there will be no constitutional disturbance consequent upon the operation. All extension of the abscess is prevented, and the patient, so far from suffering, rapidly improves in his general condition consequent upon the evacuation which has been effected. If there be no such cause of irritation, the sinus will presently heal up.

In the case of acute abcesses the effect is still more marked. For example, a case which I recollect, that of a large abscess upon the side of the chest, consequent upon a local hurt; the hyperdistention of the abscess is followed by the rapid contraction and healing of the sac.

It so happened, that some time ago I had under my care a case in which two abscesses had formed in consequence of disease following the course of the vena saphena interna. Not disease of the vein itself, for I do not believe in such an occurrence. One of these abcesses was opened in the ordinary way, and it was three or more weeks before it healed. The second abscess I distended, and the result was, that in some two or three days it had entirely closed. I do not know when I have had a case which impressed me more with the benefits attending this particular method of dealing with abscesses, acute or chronic.

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A New Philadelphia Dispensary.—The building formerly known as the Retreat, on the Spruce Street side of the Pennsylvania Hospital grounds, in Philadelphia, was opened on January 1st, 1879, as a free dispensary for medical and surgical relief, free to all unable to pay for the same. The reception room is cosily fitted up, and there are two rooms besides for the medical and two for the surgical patients, with appropriate closets and washstands, the heating being from open grates. The hours for surgical treatment are from 10 to 11 A.M., and from 11 to 12 for medical relief. The dispensary will be open every day except Sunday, and visitors to patients will be admitted only on Mondays, Wednesdays, and Fridays, from 2 to 4 P.M.

# LECTURES ON CLUB-FOOT.

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK (SPECIAL COURSE).

By JOS. C. HUTCHISON, M.D.,

VISITING SURGEON TO THE BROOKLYN CITY HOSPITAL; SURGEON-IN-CHIEF TO THE BROOKLYN ORTHOPEDIC INFIRMARY; CONSULTING SURGEON TO THE KINGS COUNTY, ST. PETER'S AND ST. JOHN'S HOSPITALS, ETC.

## LECTURE VII.

TALIPES CALCANEUS—CONGENITAL—TREATMENT—NON-CONGENITAL—CAUSES—TREATMENT—CALCANEO-VARUS AND CALCANEO-VALGUS.

I invite your attention to-day, gentlemen, to another deformity of the foot, viz., *talipes calcaneus*, which, like the varieties hitherto described, occurs both as a congenital and non-congenital affection—the two varieties differing so greatly, both in pathology and treatment, as to demand a separate consideration. The congenital form is almost as rare as equinus. The essential characteristic of talipes calcaneus is depression of the heel. In the *congenital* variety, which we will first describe, there is, in addition to the depression of the os calcis, marked flexion of the dorsum of the foot against the front of the leg (Fig. 27), and

FIG. 27.

the condition is exactly the reverse of talipes equinus, in which there is an extreme degree of extension of the foot. The foot is retained in a flexed position by the contraction of all the muscles whose tendons pass over the front of the ankle-joint, and stand out very prominently.

The *bones* undergo very little change in their relative positions; indeed, the deformity is only an exaggerated degree of one of the natural motions or positions of the foot, and the deformity, in the infant, can be easily overcome by gentle manipulation; but on removing the hand, the foot is immediately drawn up again by the contraction of the muscles. The facility with which the foot can be brought to a normal position indicates that structural shortening has not taken place, either in the flexor *muscles*, or in the *ligaments* on the anterior part of the foot. In rare cases, however, the foot is held firmly in its flexed position in consequence of the structural shortening of the anterior muscles of the leg and the anterior ligaments, and operative proceedings may be necessary to overcome the distortion.

*Prognosis.*—Congenital talipes calcaneus, which is only seen in infants and young children, may be regarded merely as a malposition from intra-uterine pressure. It is the least important, as well as the rarest deformity of the feet, and yields readily to the simplest treatment. Surgical interference is not usually required. It is only necessary in ordinary cases to extend the foot, to make frequent passive motions of the ankle-joint, and to use frictions with the hand over the anterior muscles of the leg. The cure may be hastened by the application to the front of the leg and foot of a well-padded metal splint, which should be straightened from time to time, as the foot improves.

In the rare cases in which there is permanent contraction of the flexor muscles (namely, the extensor longus digitorum, peroneus tertius, extensor proprius pollicis, and the tibialis anticus), they should be divided as they pass over the ankle-joint, where they are tense and prominent. A sharp-pointed tenotome is inserted close to the inner side of the extensor longus and carried outward beneath the tendon of that muscle, and also of the peroneus tertius, which are then divided towards the skin; the knife is withdrawn, and reintroduced and passed inward beneath the anterior tibial and extensor pollicis tendons, which are divided in the same way. You will avoid the risk of puncturing the anterior tibial artery by keeping the point of the knife close to the tendons to be divided. The wound should be immediately closed by a pledget of lint, retained by adhesive plaster and a bandage.

After three or four days you should begin the mechanical treatment, which consists in the application of the padded metal splint, in the manner which I have just described. The foot should be extended daily, and you will, in the course of three weeks, without much pain or inconvenience, be enabled to bring it to a state of complete extension. When this has been accomplished, the splint may be left off an hour or two each day, and passive motions and manipulations practised until the tendency to contraction has ceased. This is of the greatest importance also to the development of the infantile muscles. There is but little tendency to relapse, and in the after-treatment no retentive apparatus is required.

### NON-CONGENITAL TALIPES CALCANEUS.

This deformity of the foot has been designated by one writer (Barwell) as *talipes cavus*, by another (Bauer) as *talipes simplex sive plantaris*, and by others it is described as *talipes calcaneus valgus*. I prefer to

FIG. 28.

describe it under the name of *non-congenital talipes calcaneus*, because of its resemblance, in the early stage, to congenital calcaneus, for, in addition to depression of the tuberosity of the calcis, there is, in the early stage, slight elevation of the anterior part of the foot (Fig. 28). At a later period, however, the foot becomes flexed upon itself at the transverse joint, the anterior portion is bent downward, the transverse arch is lost, while antero-posteriorly the sole is deeply arched. This affection is usually of paralytic origin, the paralysis being generally confined to the triceps suræ, but sometimes it extends to all the extensor muscles. I

cannot better describe this deformity than by directing your attention to the appearances presented by the cast I here show you, which was taken from the

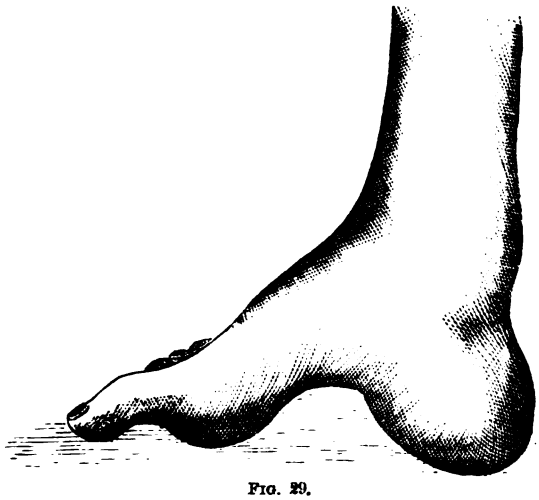

FIG. 29.

right foot and leg of a girl eleven years old, who was the subject of infantile paralysis, affecting the triceps extensor muscles of the leg, at two and a half years of age (Fig. 29). It will be noticed that the foot in front of the transverse tarsal joint is bent downward. The flexion of the anterior part of the foot is secondary, and is due to the action of the peroneus longus chiefly, assisted by the posterior tibial, these muscles supplementing the sural muscles as extensors of the foot. These muscles acting, while the triceps suræ are paralyzed, in their efforts to keep the foot normal by their extending force, must necessarily drag down the anterior tarsus, so that the ball and the heel approximate each other, and the sole is so deeply arched that a mouse could run under it without touching it, as was the case in Lady Hester Stanhope's foot, which was remarkable for a high plantar arch. The transverse arch has disappeared. The foot is also a little rotated outward by the action of the peroneus longus, its farther rotation being prevented by the action of the posterior tibial. It will be perceived that the head of the metatarsal bone of the great toe is forcibly depressed. This is due to the normal contraction of the peroneus longus, which is unopposed in this part of its function. It will be seen also that the os calcis is depressed, so that the patient walks on the tuberosity instead of walking upon the normally undersurface of the bone, and that the only parts of the foot which touch the ground are the ball of the great toe and the tuberosity of the heel. The muscles of the calf are wasted, owing to the long-standing paralysis, and the back of the leg, from the knee downward, is very nearly straight, instead of presenting the curved outlines observed in the normal leg. Even the os calcis has lost its prominence, and the tendo Achillis feels like a thin and narrow ribbon. The limb is cold, the circulation languid, and the patient suffers easily from chilblains; in fact, we have here the usual concomitants of a paralytic limb.

You can imagine that the inconvenience caused by such an affliction is very great, and the lameness considerable; the relaxation of the ligaments deprives the foot of all useful motion and firmness, and walking is accomplished with great difficulty without the aid of artificial support.

The usual *cause* of non-congenital calcaneus is infantile paralysis, principally confined to the sural muscles; but sometimes all the muscles below the knee are paralyzed, except those whose contraction produces the deformity. It may also be caused by improper union of the tendo Achillis after section or accidental rupture, by separating the ends too far before they had united, or it may be produced by the contraction of a cicatrix resulting from a wound or burn on the dorsum of the foot. A condition of the foot resembling non-congenital calcaneus is artificially produced among the Chinese women of the higher order by confining the feet by short shoes and improper bandages during infancy (Fig. 30).

FIG. 30.

It has been found, upon dissection, that the relative position of the *bones* is considerably changed. We have already alluded to the depression of the tuberosity of the os calcis, while its anterior part is elevated; and, as a consequence of this, there is a great obliquity of the astragalus, its trochlea projecting posteriorly, while the articular surface of the tibia is thrown forward upon the neck of the astragalus, and the anterior portion of its trochlea. The bones in front of the transverse tarsal joint are pulled downward by the action of the peronei muscles, diminishing the length of the foot, and increasing the longitudinal arch.

Owing to the changed position of the bones, the *ligaments* on the dorsum of the foot and behind the ankle-joint are elongated; those in front of the ankle-joint and those in the sole, together with the muscles with which they are connected, are contracted.

When the distortion arises from paralysis, and is of long standing, the *muscles* are in a state of atrophy and fatty degeneration, more or less complete.

The *prognosis* in cases of this deformity arising from paralysis is usually unfavorable, and our treatment can only be palliative. We can remove the deformity in a measure, but we cannot give power to the muscles.

*Treatment.*—In paralytic cases, if the patient is seen soon after the distortion has begun, we can not only prevent any considerable deformity by the use of suitable appliances, but muscular power can, in a measure, be restored by means of electricity or galvanism, heat, stimulating applications, rubbing, etc. The apparatus which I would advise is the one I here show you (Fig. 31, Tiemann's). It consists of two lateral side steels, carried up the leg and secured by a band around the calf, with a joint at the ankle. The anterior part of the foot is depressed, and the heel is elevated by a steel spiral spring placed on a pivot, and playing between brackets of the leg and ankle-stem. This apparatus I consider preferable to the india-rubber cords fastened posteriorly to the heel below, and to the calf-band above, so as to imitate the tendo Achillis. If, however, the latter apparatus should be employed, the spur projecting from the posterior part of the heel should be dispensed with

(because it is in the way, and liable to catch, especially when descending the stairs), and the cord fastened directly to the heel by means of a leather strap.

You may be surprised to learn that this affliction is usually overlooked in the early stage, and, when it is recognized and brought to the attention of the surgeon, considerable deformity has taken place. The earlier it is treated, the more readily is the distortion overcome. When, unfortunately, much time has elapsed before the deformity is discovered, there is marked depression of the os calcis and great increase of the longitudinal arch of the foot, and the ligaments and muscles have adapted themselves to the

FIG. 31.

altered condition of the foot, so as to give it a considerable degree of firmness, which enables the patient to walk quite well. In such a case, while physiological treatment and mechanical appliances may increase the usefulness of the foot, and may be used in appropriate cases, it is extremely probable that tenotomy would, on account of the paralysis of the muscles, allow the foot to dangle about and become almost useless, and render some mechanical apparatus indispensable. Operative treatment is less appropriate in this than in other forms of club-foot. In exceptional cases it may be necessary to divide the contracted extensor and other tendons, and the plantar fascia, and then proceed to extend and elongate the foot by the use of a Scarpa's shoe, and by pressure on the dorsum of the foot. When the distortion has been reduced, the patient may wear the shoe which I have just shown you, for the purpose of supporting the limb. I desire to warn you against exciting the expectations of your patient too much. He should be informed that the treatment can only be palliative—that there is no reasonable probability that the paralyzed muscles will regain their normal power.

In cases of talipes calcaneus, the result of non-union of the divided tendo Achillis or of too great elongation of the reuniting medium, Dr. Little advises incising the edges of the ununited tendon, or dividing the uniting medium with a tenotomy knife, and then approximating the ends by placing the foot in an extended position. In such a case he has known an abundant effusion of plastic material to take place, and firm union of the tendon at the end of two weeks.

When the distortion is caused by cicatricial contraction on the front of the leg or dorsum of the foot, such a treatment should be adopted as seems to be indicated in each particular case.

*Calcaneus varus* and *calcaneus valgus* are slight and unimportant modifications of talipes calcaneus. Their characteristics are sufficiently indicated by their designations, and the pathology and treatment are essentially the same as in the simple varieties, and do not therefore deserve separate consideration.

I have now, gentlemen, completed what I have to say to you upon the subject of club-foot, in accordance with the plan which I proposed for myself at the outset. No attempt has been made to treat the subject exhaustively, or to amuse you with novelties, and I have endeavored to avoid *ad captandum* or random statements. It has been my purpose to give you in as concise and simple a manner as possible the results of my personal observations and reflections upon the subjects we have considered, to unfold to you, as I stated at the outset, a much neglected, but a most attractive chapter of modern surgery, and to impress upon you general principles which I trust will enable you to treat club-foot wherever you meet it, without the assistance of the specialist or the hospital surgeon.

To those of you who may desire to study more fully and more in detail the subject of talipes, I would recommend the great work of Mr. William Adams, of London, by far the ablest monograph upon this subject in any language.

In conclusion, gentlemen, I desire to express my sincere thanks for the interest you have manifested and for your uniform courtesy, and to wish you every success in the profession of your choice.

## ACUTE ARTICULAR RHEUMATISM.

TWO LECTURES DELIVERED BEFORE THE MEDICAL CLASS OF THE UNIVERSITY OF PENNSYLVANIA,

BY ALFRED STILLÉ, M.D., LL.D.,

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE.

(Reported for THE MEDICAL RECORD.)

### LECTURE I.

THE CAUSES OF ACUTE ARTICULAR RHEUMATISM—TRUE ARTICULAR RHEUMATISM NOT A TRUE INFLAMMATION—GONORRHŒAL RHEUMATISM NOT A TRUE FORM OF ARTICULAR RHEUMATISM—COLD AND DAMPNESS AS EXCITING CAUSES OF ACUTE ARTICULAR RHEUMATISM—ACUTE ARTICULAR RHEUMATISM AS PRODUCED BY THE PRESENCE OF LACTIC ACID IN THE BLOOD—ACUTE ARTICULAR RHEUMATISM DUE TO BLOOD-POISON—THE LOCAL SYMPTOMS OF ACUTE ARTICULAR RHEUMATISM.

ACUTE articular rheumatism is one of the most common of all diseases. Although but rarely, if ever, fatal in itself, it is always liable to cause permanent deformity, and is often followed by serious and destructive complications. You all know, indeed, that it is one of the most potent and frequent causes of organic disease of the heart. Its presence is marked by pain, swelling, heat, and redness, the usual signs of the inflammatory process. These symptoms manifest themselves in one or more of the joints. Though in all instances accompanied by fever, there is but slight, if any, tendency to suppuration. As far as I am concerned, I have never known of suppuration to occur in this disease. This fact shows us conclusively of itself, if we had no other facts as proof additional, that acute articular rheumatism is not an inflammation in the ordinary sense of the word. The patient may recover entirely, so far as the joints are concerned, and yet die from one of the numerous complications of the disease. Acute rheumatic inflammation of the joints seldom leaves behind it the results of inflammation in the joints themselves, no matter how severe may have

been the attack. When lesions of the joints have been found after death, and such cases are of exceeding rarity, they have undoubtedly been the result of an arthritis due to other causes, such as pyæmia, and by pyæmia I mean a general blood-poison, accompanied by a tendency to suppuration all over the body, in the joints as well as elsewhere.

### TRUE ACUTE ARTICULAR RHEUMATISM NOT A TRUE INFLAMMATION.

Now, perhaps some of you may be surprised that I should speak in this way, and you may say to me, "You have not always taught us this." Very true; I must confess that my past teachings have been far from my present convictions on this point. I have been compelled to waver, because those whom I am bound to consider as my own teachers have held at different times, within recent years, the most various and contradictory views of this matter. But, with the better and more conclusive light which has quite lately been thrown upon the subject, I am to day able to give you my complete and final judgment in the matter, which is, that in *acute rheumatism of the joints there is no true inflammation, in the proper sense of the term.*

Acute articular rheumatism is said by some to be an hereditary disease. I have always had, and still hold to, my doubts as to whether it ever occurred without the intervention of a direct cause, such as cold and dampness, poor food, and improper clothing. Of course, these conditions are most frequently met with among the lower classes of society, and the children of these people, being exposed to the same predisposing causes as their parents, are subject to the same disease, and yet it would be far from logical to state that such children acquire the disease from a simple inherited predisposition to it.

One thing, however, is very certain, and that is, that a person who has had one attack of acute articular rheumatism is much more liable to a second attack than he who has not been attacked before. One attack is wont to leave behind in the system a great susceptibility to the disease and to its cause. One who has suffered from acute articular rheumatism will always feel the approach of cold and damp weather, and will, as it were, become his own barometer.

Although attacking children frequently, it is comparatively rare until the age of puberty. It frequently follows dysentery and scarlatina. Every now and then we see it in the puerperal state. I can imagine no common element which is able to account for its presence in each of these three conditions. The diseases themselves are certainly widely different.

Males are much more susceptible to the disease than females. And this is so, of course, because they are much more exposed to the vicissitudes of weather than the gentler sex. This rule holds good in this country among all classes of society, and in England and the continent, among the middle and upper social strata; but where the women perform the same outdoor labors and are consequently as much exposed as the men, which is the case almost universally among the lower classes in Europe, they do not differ so much from the men in the frequency of being attacked.

Certain classes of people, owing to the nature of their employment, are the most exposed to the disease. Of all persons, sailors are proverbially the most rheumatic, and with good reason. Next in order come soldiers on active campaign duty. Among trades, bakers, going as they do, in a moment from a very hot to a more or less cold temperature, and dyers and coachmen, and in fact, outdoor laborers of all kinds are much exposed to the peculiar conditions which produce the disease, and are of a necessity more subject to it than others.

You have heard, no doubt, of gonorrhœal rheumatism?

### GONORRHŒAL RHEUMATISM NOT A TRUE FORM OF THIS DISEASE.

I have great doubts as to whether rheumatism of the articular type can be produced without the interference of cold. Gonorrhœal rheumatism is not a rheumatism in its true sense. Those who hold that it is so are, I think, in much error. Gonorrhœal rheumatism is a species of synovitis. Such are those rare, so-called cases of acute articular rheumatism in which lesions have been found in the joints after death, to which I directed your attention a few moments ago.

### COLD AND DAMPNESS AS EXCITING CAUSES OF ACUTE ARTICULAR RHEUMATISM, WITH AN EXPLANATION OF THEIR ACTIONS.

The great exciting cause of acute articular rheumatism is cold, especially when the body is perspiring; hence, where east winds prevail, rheumatism is rife. Rheumatism is very frequently met with in the British Isles, because the climate is so cold and damp. In America, the further you recede from the influence of the east winds the less rheumatism you will find.

There has been much discussion regarding the rationale of the action of cold and dampness upon the body in producing this disease. Cold, of course, tends to carry away caloric from the body, while dampness not only deprives the body of caloric and of electricity, but also exerts a depressing influence upon all the functions of life. Not only do the cold and dampness carry away these vital stimulants, but they prevent exhalation, and so cause the retention of effete material within the body. (I shall allude hereafter to the theory of the presence of a poison in the blood in this disease; but you can very easily see how, if exhalation from the surface of the body is prevented, there is of necessity a poison retained and circulating in the blood.) Many of you have noticed, no doubt, how much more tolerable is a really intense degree of dry cold than a much less degree of damp cold.

Cold and dampness act more upon the joints than upon other parts of the body, *i. e.*, affect them sooner, because the joints are not protected by muscles and fat, and have less blood and therefore less heat in them.

Cold, as you know, always produces a temporary suppression of habitual discharges, such as the menses, the flow of milk, and the secretion of pus. Whatever produces a suppression of discharges may, of course, bring on articular rheumatism; but cold and dampness, when they check such discharges, always produce it. This disease, as is well known everywhere, is infrequent in warm weather. In countries where the temperature is always high, it is hardly ever known to occur. This would seem to be quite sufficient proof of the powerful effect of cold and dampness in producing it.

### ACUTE ARTICULAR RHEUMATISM AS PRODUCED BY THE PRESENCE OF LACTIC ACID IN THE BLOOD.

It is very hard to know exactly how cold and dampness produce acute articular rheumatism. There have been very many attempts made to explain the real and direct cause of the disease, but none of the theories advanced have been consistent with all the facts of the case, *i. e.*, have so far explained away the difficulties of the situation as to constitute themselves

trustworthy explanations. One theory, however, stands preëminent among all the rest as clearing up very many dark points. This theory is of quite recent origin, and is, that the phenomena of acute articular rheumatism are all caused by the accumulation and the retention of lactic acid and of other acid products in the blood. Certain it is that these acids must be retained in the blood if the elimination of effete products is checked.

One well-authenticated fact makes this theory, in semblance at least, a very plausible one. Large doses of lactic acid, as given to patients with saccharine diabetes, occasionally produce all the symptoms of acute articular rheumatism. The administration of lactic acid, as you all know, in saccharine diabetes, causes an immediate and most marked reduction in the quantity of sugar in the urine. In one case on record, this same treatment was seen to produce all the symptoms of acute articular rheumatism several times in succession. Dr. Foster, of England, had under his charge a patient with well-marked symptoms of diabetes, who was treated with lactic acid, and most carefully watched. This patient had never suffered from an attack of acute articular rheumatism, and had been in the hospital under treatment for diabetes for some time before the lactic acid was employed. No sooner had several doses of the lactic acid been administered than the man began to complain of pains in the joints, while the joints themselves became swollen, red, and painful to the touch. Upon the inception of these undoubted symptoms of acute articular rheumatism, the use of the lactic acid was suspended, and, no other treatment being employed in the meantime, the symptoms aroused by the use of the acid gradually, but completely, disappeared. Again the acid was administered, and again the redness, swelling, pain, and heat in the joints. came on — only to disappear for the second time upon the suspension of the drug. A third time the medicine was given—a third time the same symptoms came and disappeared. Whether the remarkable and consistent effects of lactic acid in this case of Dr. Foster's show any real and palpable connection between the assumed cause of the disease and its real cause, whatever that may be, I do not, indeed, know; but of one thing I can be absolutely certain, and that is, that the lactic acid in the above cited case at least, if not in ordinary cases of acute articular rheumatism, directly produced the actual symptoms peculiar to acute articular rheumatism.

The acidity of the blood in this disease has been conclusively proven to be greater than in any other affection, while the salutary and immediate effect of the administration of alkalies in its treatment gives additionally strong support to the idea that all the trouble is caused by the over-abundance of some acid in the circulation, whether that acid be lactic acid or not.

Attention has been called to the fact, that while one person exposed to cold and dampness is seized with acute articular rheumatism, another individual, after exactly the same exposure, may have an attack of dysentery, etc., etc., and the conclusion has been drawn that cold and dampness are not important factors in the causation of the disease. You should all know that one person may have a decided predisposition to one form of disease, while his neighbor is equally strongly predisposed to another of a widely different nature, and that when these two persons are exposed to cold and dampness, the great exciting causes of many different diseases, one is attacked with one, and the other with another disease.

The early symptoms of acute articular rheumatism are those of all other diseases which are attended with the symptoms of inflammation, viz.: a chill, a feeling of general debility, a hot skin, a frequent pulse, loss of appetite, headache, thirst, and more or less highly colored urine. None of these conditions are distinctive of this or any other form of acute disease. The joint affection is *the* symptom; soon after the above prodromic phenomena have set in the joints, one or more of them, or all of them simultaneously, become swollen, red, and painful.

Occasionally the local symptoms precede the constitutional, *i. e.*, the joints become swollen, red, and painful before the fever, and headache, and general lassitude are felt. But, as a general thing, the fever and the other attendant symptoms are the first to appear.

If the symptoms were merely local, or always primarily so, the disease would be only a local disease. But the first occurrence of general symptoms which sometimes occurs, points indubitably to the existence of blood-poison.

### ACUTE ARTICULAR RHEUMATISM DUE TO BLOOD-POISONING.

There is no question about this. It is proved beyond all cavil by what I have just told you of the causation and symptoms of the disease. *Rheumatism* means, etymologically, *a defluxion of some humor upon the joints.* This old definition is confirmed by the most recent researches. It is a general systemic disease, which assumes a local form.

### THE LOCAL SYMPTOMS OF ACUTE ARTICULAR RHEUMATISM.

*Pain* is the first local phenomenon. This pain may amount only to a simple feeling of tension, or it may be lancinating, or throbbing, or boring; of whatever kind the pain may be, in its degree it is often intolerable. There is no other pain of the joints, except that of gout, which is worse than that of acute articular rheumatism.

The pain is felt most upon motion, *i. e.*, upon movement of the part. The least movement, a breath of air, a touch of the bed covers, produces the most violent exacerbation of pain. The pain too is always worse at night. The inflammation has a great tendency to leave its seat and migrate to another joint, or to all the other joints at once, or to one of the internal organs. Herein lies another proof that we have no local disease to deal with. Again, the disease may leave one joint altogether, and settle upon another joint, or upon an internal organ, and then, leaving this second point of disease, return again to its first seat. Again, all the joints of the body may be the seat of the disease, and the patient become as rigid as a statue.

It is a strange fact that the disease, when leaving one joint and seizing upon another, is likely to attack the same joint upon the opposite half of the body, or if two joints are simultaneously affected, they are apt to be the corresponding joints on the opposite sides of the body.

The next symptom which we have to consider is the *heat.* This is very sensible to the hand when applied to the affected parts. The temperature is never so high, when but one joint is affected, as when all the joints are attacked simultaneously. In ordinary cases the thermometer applied to the skin marks from 100° to 104° F. In exceptional cases—particularly the so-called cases of *hyperpyrexia*—the temperature runs up to 110°, or is sometimes even as high as

112°. (It is in these cases of so-called hyperpyrexia that a certain kind of treatment is supposed to be valuable on account of its power of reducing the temperature.)

The *redness* is never so great in acute articular rheumatism as in other forms of inflammation—seldom being more than a light pink.

The *swelling* likewise is not so marked, but as it occurs in the joints is easily detected—particularly is this the case where the ankle, elbow, or knee-joint is affected. In the case of the hip joint, there may be a considerable amount of swelling around the joint without any external sign of its existence. This is also the case in rheumatism of the vertebræ, where the swelling is generally of a diffused nature, and not marked on the surface.

The swelling is generally of two kinds, occupying (1) the connective and other tissues around the joints, or (2) attacking the tendinous fossæ or the synovial cavities. In this latter form, the joint may become alobular in shape, and percussion may elicit considerable fluctuation, and give to the patella a regular see-saw motion as it hangs suspended in the fluid.

(To be concluded.)

# Reports of Hospitals.

## COOK COUNTY HOSPITAL, CHICAGO.

CLINICAL REMARKS

By Edward W. Lee, M.D.

(Reported for The Medical Record.)

### DIFFUSE TRAUMATIC ANEURISM OF THE PALMAR ARCH.

We have here a case of diffuse traumatic aneurism. Some eight weeks since this man sustained a wound in the palm of the hand by means of a piece of broken glass. The wound healed kindly and he thought nothing more of it till about a month subsequently, when he noticed a small pulsating tumor making its appearance at the site of injury; it gradually increased in size till it became as large as a walnut. One night during sleep it ruptured, and a considerable quantity of blood was lost. A compress was applied, which controlled the hemorrhage. I examined the injury for the first time about forty-eight hours since. On removing the bandage and compress the blood spurted out with great force, so that I was obliged to make forcible compression on the radial and ulnar arteries in order to control the hemorrhage. I do not know of any lesion the treatment of which proves more troublesome, or taxes the skill and patience of the surgeon more, than this. The bleeding-point was at the deep palmar arch as it gives off its first interosseous branch; from its depth it was a matter of great difficulty, without making such an extensive dissection as to endanger the integrity of the hand, to reach it, and as the soft parts had become pulpefied by the pressure of the tumor, the difficulty was still further enhanced. It is always the best practice, if it can be accomplished, to secure the vessel at the seat of injury, as you may ligate the radial and ulnar arteries; yet the anastomotic supply furnishes sufficient blood to maintain the hemorrhage. I made a longitudinal incision over the centre of the tumor, and turned out the clots and broken-down tissue; this procedure made quite a good-sized cavity, at the bottom of which the bleeding vessel could be seen. Repeated efforts were now made to ligate the injured artery, but without success. I, however, made acupressure by means of a curved needle passed beneath the vessel at the proximal side, and in this manner succeeded in controlling the supply of blood from that direction. An attempt to execute a similar manœuvre on the distal side was unsuccessful, for want of a needle with a suitable curve. I found a tenaculum, however, which possessed the requisite curve, and, by passing it under the vessel and compressing the transfixed tissue with silver wire, I succeeded in controlling the hemorrhage completely. So great had been the difficulty in attaining this object by *any* means, I thought it would be imprudent to disturb the existing order of things, and so determined to leave the tenaculum in situ. The handle of the instrument was protected with wads of oakum and a bandage applied over all—rather a cumbersome-looking dressing, as you may perceive, yet thoroughly effectual. I shall leave it undisturbed for two or three days, when it may be removed with perfect safety.

### ANTISEPTIC DRESSING WITHOUT THE SPRAY.

The next case we have illustrates what we may do with many small wounds in the way of antiseptic dressing, dispensing with the spray, gauze, etc., as used in the Lister method. This young man received three weeks ago a crushing injury of the hand. The index finger received a lacerated wound, the middle a compound fracture, and the ring finger was so badly mutilated that amputation was rendered necessary. The injured parts had been exposed to the atmosphere for a couple of hours before the first dressings were applied. I carefully cleansed the wounds, then thoroughly washed them with a solution of carbolic acid (15 grs. to the ounce of fluid made of one part each of alcohol and glycerine and six of water); then, with lint steeped in this solution, I wrapped the injured fingers, securing them with a narrow roller bandage neatly and closely applied, so that the dressing was quite thick. The dressings were again saturated with the solution, and directions given to keep them constantly moistened with it. The patient was seen daily and carefully examined for evidences of suppurative inflammation. In the absence of such the dressings were allowed to remain on a full week, and then their removal was simply a precautionary measure, as I believe they might have been allowed to remain undisturbed to this day, with positive benefit. Not a drop of pus was visible; healing had progressed kindly. The dressings were renewed. Another week passed by: still no evidence of suppuration. The wounds were again dressed as before, the same healthy condition being found. The finger least injured was nearly healed. Three full weeks have now passed by, and for the third time I shall remove the dressing. From the length of time that has elapsed and the exposure of the wounds to the air, it would seem reasonable to expect to find some pus this time. As I remove the bandages you perceive no pus is present, and the wounds are in a perfectly healthy condition.

In adopting this modified antiseptic plan you should watch the case very closely: if you find pain has been experienced running up the limb, or that heat is complained of in the part—if fever or glandular and lymphatic irritation is present, you must immediately remove the dressing. On the other hand, in the absence of all those symptoms, you may permit them to remain undisturbed. I have before now dressed a compound fracture of a finger in the manner detailed, and, guided by the symptoms, permitted the original dressing to

be retained full thirty days; on removing it at the end of that time, I found the bone fully united and the wound healed.

This mode of treating wounds may be very beneficially used in all small injuries where it is inconvenient or impracticable to use the perfect process with the spray, etc.

One improvement upon the dressing used in this case might be made. The bandages after they are applied should be painted over with a solution of some gum or resinous tincture, to make the dressing more nearly air-tight. Compound tincture of benzoin, or tincture of tolu, will answer the purpose.

## Progress of Medical Science.

ON THE PULSATION OF THE VENA CAVA INFERIOR IN ITS RELATION TO PATHOLOGICAL CONDITIONS OF THE LIVER.—Dr. Ludwig Diemer has demonstrated the existence in rabbits of a physiological pulsation of the vena cava, isochronous with the contraction of the right auricle. It is not appreciable at the point where the renal veins open into the cava, and is very slight at the level of the openings of the hepatic veins, but it is very distinct in the thoracic cavity close to the heart. A possible error from compression by the diaphragm was excluded by division of that muscle. When the vein was compressed below, and then artificially emptied by pressure toward the heart, it was quickly refilled by blood *from the heart*. This regurgitating wave in the cava inferior is very small in consequence of the aspiratory action of the cardiac diastole. When the circulation in the pulmonary artery is impeded in consequence of valvular lesions or of disease of the lungs, resulting in increased pressure in the right ventricle during diastole, the blood is dammed back in the cava inferior, and disease of the liver follows (nutmeg liver). Dr. Diemer accounts for the fact that the kidneys do not suffer to an equal extent with the liver from the retardation of the circulation in the cava ascendens, by the theory that it is the pulsation and not the retarded circulation itself which is the immediate cause of the atrophy of the liver. A further increase in the obstruction is followed by an increase in the force of the venous pulsation, and the kidneys then become hyperæmic, but the right more so than the left, because it lies nearer to the liver.

In men the vena cava is directly in contact with the liver, and the distance thence to the heart is still smaller than in rabbits. Dr. Diemer thinks that foreign bodies which enter the right side of the heart with the blood, may be carried into the cava inferior, and thus into the liver by the regurgitating blood-stream (Magendie, Merkel). In this way the often asserted connection between injuries of the head and abscesses of the liver, the lungs remaining intact, and the predilection of metastatic carcinoma for the liver may be accounted for.—*Med. Chir. Rundschau*, August, 1878.

ON INSOLATION AND REFRIGERATION.—Dr. Kirchner has recently carried out a series of experiments on animals with a view to gain an insight into the pathogenesis of the two allied processes, insolation and refrigeration. He deduces from them that the latter may be characterized as prostration of the vital forces, and, first of all, of respiration and circulation. The morphotic and chemical alteration of the blood resulting therefrom, particularly its impoverishment in oxygen, is the immediate cause of the derangements that directly threaten life. Warmth, on the other hand, acts as an irritant on the animal organism, and when in excess leads to exhaustion. This constitutes the essence of insolation. As in the case of refrigeration, the foundation of the symptoms is the exhaustion of the oxygen of the blood, which here too is the consequence of the failing respiration and circulation. The appearance of rigidity during exposure, either to cold or heat, indicates excessive lack of oxygen in the blood. This rigidity is, like the rigor mortis, an anæmic muscular tetanus. If, however, we put coagulation, or, in other words, coagulation of the muscles, out of the question, tonic muscular rigidity is not commonly met with in cases of refrigeration or insolation.

The deleterious action of extreme temperatures on the organism is heightened by other weakening influences which tend to impair the supply of oxygen and to exhaust the resisting power of the system. Here must be mentioned, particularly, the misuse of alcohol. In addition to these acute effects of the action of cold and heat, there are analogous chronic conditions, which must be ascribed to the gradual action of extreme temperatures in the organism. They are characterized by manifestations of anæmia and exhaustion, and in their higher grades partly constitute the basis of the tropical and polar cachexias. It is still an open question whether any other specific diseases owe their origin to the influence of heat and cold. The fact that abdominal typhus occurs most frequently during the latter part of summer and towards the end of winter, has not yet been satisfactorily accounted for; and, as in many cases, no external source of infection can be discovered, it is, in fact, possible that the morphotic and chemical alterations of the blood and tissues, which have been proved to be the pathological effects of insolation and refrigeration, play at least a subsidiary rôle in the production of the infection.—*Allg. Med. Cent. Zeit.*, No. 47, 1878.

OBSTINATE VOMITING CURED BY MEAT-PANCREAS INJECTIONS.—In the case of a woman, forty-eight years of age, suffering from an abdominal aneurism, the vomiting was so persistent that the patient was unable to retain even a mouthful of water on her stomach. Dr. Düring, of Westhofen, under whose care she was, finally had recourse to Leube's nutritive clysters. Every day, 1½ oz. of meat and ½ oz. of pancreas were chopped up very fine and mixed with warm water, until the compound had the consistency of a thin pap; half of this was injected into the rectum in the morning, and the other half in the evening, the clyster being retained each time for from eight to ten hours. The nutrition of the patient soon began to show signs of a slow improvement. After three weeks she was able to take a little milk by the mouth, but as the quantity thus taken did not exceed four tablespoonfuls per diem for several weeks, the progressive improvement could only be ascribed to the injections. After ten weeks the patient was so far improved that the clysters were discontinued. The gradual improvement in stomach digestion was accompanied by a progressive diminution in the size of the tumor.—*Med. Chir. Rundschau*, August, 1878.

PECULIAR ALTERATION OF THE EPIDERMIC CELLS.—Dr. Leloir, of Paris, has met with a hitherto undescribed form of morbid alteration of the epidermic cells. He observed it first in venereal vegetations, but has subsequently met with it also in mucous patches of the labia and in epithelioma of the glans. The cells affected are chiefly those of the intermediate

layer of the epidermis, but the more superficial cells of the rete, and the deeper cells of the horny layer are also involved. The change consists first in the formation of a cavity around the nucleus; this cavity gradually enlarges at the expense of the protoplasm, while the nucleus at the same time undergoes various changes. As the cavity enlarges the protoplasm loses its granular character, seems to become striated longitudinally, and is converted into a thin cell-wall; the serrated border is lost. At the same time the nucleus in many of the cells has broken up into a number of granules, which are strongly colored by carmine, and which may finally disappear entirely. In other cells, on the contrary, the nucleus proliferates. Hence, while some of the newly-formed cavities are empty or contain only a few granules, others contain two or three nuclei, or perhaps a single nucleus in process of division. It is probable from this that a portion of the embryonic elements and leucocytes, met with at a more advanced stage of the process, are derived from the nuclei of the epidermic cells, a mode of origin which is absolutely denied by Auspitz and Unna.

As the process advances the cellular walls become thinner and thinner, and at last break down entirely, and the cavities open into one another. In this way vast spaces are formed, whose walls present irregular projections, constituted by the débris of the cellular walls. These spaces are filled with nuclei, white globules, granules, and small filaments, crossed or otherwise, the remains of the walls of disintegrated cells. At this stage the appearance of the section is exactly like that of a variola pustule.—*Gazette Médicale de Paris*, No. 24, 1878.

Note on the Epithelium of the Sudoriferous Glands.—Most authors who have written about the structure of the sweat-glands, have merely stated that the epithelium in the convoluted portion of the tube is composed of polygonal and cylindrical cells. These cells rest on a special membrane, on the internal surface of which Czerny asserts that he has found an endothelial lining. M. Renaut, however, has found that the cells of sweat-glands, taken immediately after death from the same region of two animals of the same species, often present very remarkable differences. He cuts out a small piece of the skin of a freshly slaughtered animal, and immerses it in strong alcohol, which hardens it so rapidly that thin sections can be cut on the following day. In skin taken from glandered horses slaughtered early in the morning at the moment of leaving the stable, when consequently the skin had not been in a state of free perspiration for several hours, he invariably found the epithelium of the sweat glomeruli composed of cylindrical cells, with clear protoplasm, the nucleus being located near the base. These cells resemble exactly, except in point of size, those which line the culs-de-sac of a conglomerate gland, such as the submaxillary. At first sight they might be mistaken for chalice cells, but the superior opening of the chalice is entirely wanting. The transparent portion of the cellule contains at the periphery a few granules, which are sometimes arranged in parallel lines so as to simulate a longitudinal, protoplasmic striation. If, however, the skin be taken from an animal killed after prolonged vivisection, or that has been placed under any other conditions which favor diaphoresis, the aspect of the epithelium of the sweat-glands is very different. The clear portion of the cellule no longer exists, the protoplasm having become everywhere granular. The swollen nucleus occupies the centre of the cell. Finally, if the action of the coagulating reagent has been rapid, the lumen of the tube is found filled with the secreted liquid, which has solidified in the form of a homogeneous mass, resembling in appearance lymph-clots.

It results from these observations that, as in the agminated glands, where long-continued secretion modifies the form of the glandular cells, diaphoresis also changes after a certain time the constitution of the cells which line the convoluted portion of the sweat-glands. When portions of the human skin are subjected to a histological examination, the epithelium of the sweat-glands is, in the majority of the cases, found altered by the abundant diaphoresis which accompanies the agony and precedes death. The state of these glands is most frequently analogous to that of the submaxillary gland after prolonged irritation of the chorda tympani.—*Gazette Médicale de Paris*, No. 24, 1878.

Changes in the Striated Muscles in Phthisis.—Dr. Fraenkel, of Hamburg, made careful microscopical examinations of the general muscular system in fifty-four cases of phthisis that died in the General Hospital in Hamburg last year, and has arrived at some interesting results. Macroscopically, he found that the muscles, as a rule, did not differ in appearance from normal muscles. Microscopically, however, the changes were very striking. The contractile substance presented all possible variations, from simple indistinctness of the cross striations to complete change of the contents of the primitive bundles into a finely granular mass. These appearances coincided with those previously found by Dr. Fraenkel in the laryngeal muscles. The most extreme form of alteration, however, that of empty sarcolemma sheaths, presenting only traces of molecular matter here and there, was much less common in the muscles of the body generally than in those of the larynx. Not unfrequently the contractile substance was found separated from the sarcolemma, the latter running a straight course, while the former presented an irregular, contracted, spiral outline. This condition was sometimes observed throughout the entire length of a primitive fibre, so far as it could be followed in the field. Transverse fissures in the muscular fibres were very frequently met with. One very constant change in at least a certain number of the muscles, notably the adductors of the thigh, the diaphragm, and the muscles of the eye, was the appearance of pigment in them. This pigmentation has not been observed in the laryngeal muscles. It appeared in the form of small, punctate, yellowish brown or greenish yellow granules, which were sometimes scattered through the contractile substance, giving it a peculiar dust-beflecked appearance, and sometimes collected in small heaps about the normal or altered muscle-nuclei. The changes are not met with in equal intensity all throughout the body, some groups of muscles being much more severely affected than others. The following is the order given by Fraenkel: 1. Muscles of the eye, arm, and forearm. 2. Breast and neck. 3. Masseter. 4. Ball of the thumb. 5. Abdomen. 6. Back. 7. Leg. 8. Thigh and diaphragm.—*Allg. Med. Cent. Zeit.*, July 20, 1878.

The Southern Clinic.—We notice that the *Southern Clinic* used our report of the meeting of the Public Health Association, and acknowledges its indebtedness very gracefully. We are always very happy to be of such service to other journals, especially when, as is not always the case, the credit is given to us.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, January 11, 1879.


## THE YELLOW-FEVER INVESTIGATION.

THE board of experts on yellow fever, appointed by the Joint Committee of the Senate and House of Representatives, has been organized and has fairly commenced operations. The plan of procedure agreed upon gives an assurance from the start that the Commission thoroughly appreciates its responsibilities, and is ready and willing to act up to them. No better indication of this disposition can perhaps be given than the determination to utilize the work already accomplished by the Yellow-Fever Commission of the Public Health Association, and to make it the basis of future action by the board. Apropos to this remark, we may state that we learn for the first time what has been accomplished by that Yellow-Fever Commission during the past three months and up to the period when the majority of its members became members of the Board of Experts. At the time of the meeting of the American Public Health Association, the report of the Commission was one of progress only. As was to be expected, the Commission had no time nor opportunity for the digestion of the large number of facts bearing upon the cause and prevention of yellow fever, which had thus far been gathered. The report, at best, was but a presentation of facts without conclusions, a body without a skeleton.

No one who knew the men who composed the committee could think that they did justice to themselves, or the cause which they represented. Since the meeting in question, however, order has been brought out of chaos, the results of the investigation are being systematized, topographical and sanitary maps are being made, and a proper foundation is laid for an intelligent and comprehensive continuation of the investigation. Twenty-eight of the infected cities and towns have already been visited by the former Commission, and all important conditions and circumstances bearing upon the epidemic carefully studied, and the facts recorded. Inquiry has been made into the circumstances attending the appearance of the first cases of yellow fever in each of the places visited, and the connection, if any, between the first cases and those subsequently developed. This line of inquiry has been pursued with reference to "each case of fever which occurred up to the time when the disease became epidemic, or so prevalent in the place as to be no longer instructive."

These inquiries referred for the most part to local or foreign origin, to the conveyance of the contagious principle, to the effects of quarantine, to measures of disinfection, to local influences as affecting the severity of the disease, to measures of individual prophylaxis, to the modification of other diseases by the epidemic, and to any unusual forms of disease during the epidemic.

We are also informed that maps have been prepared showing the location of each case of yellow fever which occurred, "with distinctive marks for recoveries and deaths." For New Orleans, five such maps have been drawn, each one exhibiting an epoch in the epidemic.

Tables representing the leading features of all epidemics of the country, as compared with the epidemic of 1878, are also being prepared, showing "the date of the first imported and first refugee case, and of death; date of first case and of first death among inhabitants; the date of occurrence of the maximum number of cases in one day, and said maximum number; date of last case, total cases, total deaths, total population, and number of persons who fled."

It seems to us necessary that we should present the work of the former commission in more or less detail, in order that the intentions of the Board of Experts, in continuing the said work—and on such a basis enlarging its investigations—may be the better understood. Not only on this account do we take the opportunity for presenting these facts, but, as before intimated, for the additional reason that they for the first time have been given to the public, being part of the report of the sub-committee appointed by the Board of Experts to devise a plan of organization.

Aside, then, from making the work of the former Commission available, the Board of Experts intends to enlarge the scope of its inquiries in several directions. There is to be made, for instance, a careful study of the meteorological phenomena during and between the epidemics, of the geological conditions, character of soil, the forms of vegetable growth, of the existence of decaying vegetable matter, of the condition of the blood and excretions, and of the "effects of the yellow fever upon the health of the people following the epidemic." It is also considered important that experts should visit the West Indies and Mexico for the purpose of inquiring "into the causes which keep alive and propagate the yellow-fever poison in these countries, especially in Havana, from which place it is usually imported into the United States." In order

to systematize this work, the board divides itself into sub-committees for special lines of investigation.

It would appear that everything has been done to secure the best results. Congress has voted a liberal allowance of money, has invested the board with full power, and has so harmonized the interest of the past fever commission with those of the present by the appointment of Dr. Woodworth as its chairman, and by retaining the majority of the former members, that there leaves nothing to be desired in the way of effective organization. Aside from this, the board itself seems to be so thoroughly alive to the duties of the hour, and takes such a comprehensive view of the situation that it is difficult, if not impossible, to offer a new suggestion as to what more could be done.

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### THE PREVALENCE OF SCARLET FEVER, AND THE PUBLIC SCHOOLS.

For the past two weeks the cases of scarlet fever have been so numerous in some parts of the city that fears are entertained of an epidemic. The type of the disease is more malignant than it has been formerly, and the mortality is increasing accordingly. Diphtheria is also assuming a graver form, and the number of deaths are proportionately increased.

Of course the various means which should be used to check the spread of these diseases suggest themselves to every one. The Health Board is concerned as to what can be done in that direction. There is no doubt that extraordinary precautions have been taken to guard against the spread of either disease. Naturally we look to the public schools as the proper places in which an initiative may be taken. We cannot expect anything from the Board of Education; in fact, even with a disposition so to do, it would be entirely incompetent either to advise or direct as to the course to be pursued.

The Health Board should be competent in cases of emergency to include the public schools in its jurisdiction. There is no doubt that the diseases in question may be extensively propagated by means of school children who are either infected themselves, or who come from families in which the disease prevails. This appears to be inevitable. But the question which should concern the health authorities refers to the possibility of reducing the number of new cases to a minimum. The present system of reporting cases to the board and then to the school, is for the most part too slow. Generally by the time such reports reach the teacher, the scholar who carries the contagion has already infected his classmates. Sanitary inspection of the children in school, and of the sick absentees, would settle the question at once; but we cannot mention such a project with any hope while the present school board exists. The next best thing is for the Health Board to educate the teachers as to their duties in the premises, to instruct them regarding the initiatory symptoms of the maladies in question, so that the scholar who becomes ill shall be sent home at once. If such precautions could be taken, many might escape. Again, the teachers should be prevented from readmitting any scholar unless it is considered safe so to do by the family, dispensary, or hospital attendant. It is to be hoped, however, that the necessity for any unusual precautions will not show themselves.

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### THE STATE MEDICAL SOCIETY.

The approaching session of the New York State Medical Society, as is well known, will be the first one for several years that will be held in accordance with the laws that gave it a corporate existence. In the act of April 10, 1813, it was provided "that the Medical Society of the State of New York, and also the medical societies of the respective counties, shall and may agree upon and determine the times and places of their meeting; and the time so agreed upon shall forever thereafter be the anniversary day of holding their respective meetings."

In pursuance of this the State Society selected the first Tuesday of February as the day for their anniversary meeting, and the different county societies selected such other days as seemed most convenient. Subsequent legislation in 1818 and 1823 enabled the county societies to change the times for their annual meetings, but did not confer the same privilege on the State Society, which continued to hold its meetings at the appointed times, up to and including the year 1875. At the annual meeting in that year, held as is usual in February, a majority of the members seemed to think that a change to one of the summer months would be desirable, and the following resolution was adopted: "That a committee of three be appointed by the President to make application to the Legislature, now in session, for the purpose of changing the time of the annual meeting of the State Society from the first Tuesday of February to the third Tuesday in June.

After the transaction of other business the Society adjourned *sine die*. It does not appear from the published transactions that the committee referred to were appointed; at all events no change as to the time of meeting was authorized by the Legislature. In the following year, however, an act passed February, 1876, permitted the State Society to change from time to time the day of holding its annual meeting, "by a two-thirds vote of all the members present at any anniversary or annual meeting of said Society, provided that no such change shall be made unless notice of the intention to change the time of such annual meeting shall have been first given at a previous regular annual meeting. An entry on the minutes of said Society of notice of such intention to change the time of the annual meeting, and an entry on such minutes of the vote taken upon any motion made pursuant to

any such notice, shall be *prima facie* evidence of such notice, motion, and the vote had thereon respectively."

The Transactions of 1876 open with the statement that "The society met pursuant to statute in the Assembly Chamber of the Capitol, at Albany, at eleven o'clock A.M., June 20, 1876." *Pursuant to statute* in this connection is rather peculiar, as it certainly was not pursuant to the statute of 1813, nor the one of 1876, which requires, first, notice of intention to change, and second, a two-thirds vote in favor of change at a subsequent anniversary meeting. Neither of these requirements appear to have been fulfilled, for the resolution passed in February, 1875, appointing a committee to make application to the Legislature cannot properly be regarded as a requisite "notice," for the simple reason that the State Society did not then possess the legal power to give such notice.

The proper time, therefore, for the annual meeting of 1876, was February; but it does not appear from the Transactions that any meeting was held at that time. It is rumored, however, that a number of gentlemen gathered themselves together in the name of the State Society at the time at which it should have met, and there and then voted to hold the annual meeting in June. If such is the case, why have the minutes of this meeting been concealed or omitted from the Transactions? We are forced to the conclusion, therefore, that the June meeting in 1876 was *not* held pursuant to statute. The annual meeting of 1877 was also held in June, and at this meeting it was ordered, without any regard to the statute of February, 1876, that the next annual meeting be held in January, 1878. At this latter meeting it was clearly evident to the managers of the State Society that the meeting was illegal, and in order to rehabilitate the society, it was determined to transact the usual business, and to have it confirmed by a quorum which should meet in June following. As the previous June meetings were probably contrary to statute, so was this one; nevertheless, it confirmed the proceedings of the January meeting, and ordered that the next annual meeting be held on the first Tuesday of February, as was formerly the case.

The facts above stated would be of little consequence or interest were it not that the Medical Society of the State of New York possesses very important powers conferred by law, which enable it to exert a decided influence regarding the material welfare of the profession in the State. In many respects its authority over the county societies, and even of their individual members, is supreme; and the presumption is, that this authority will only be exercised for the general good of the profession and the public. If these ends are to be attained, and the powers of the State Society to be preserved, it is clearly necessary that all of its proceedings should be in accordance with the laws to which it owes its existence. If not thus protected, any malcontent can raise in the courts the question of its jurisdiction, and might in some events deprive it of its corporate rights. The ultimate responsibility for blunders of this sort naturally rests with the presiding officer, whose duty it is to be familiar with the laws pertaining to the duties of his office, and of the society over which he presides. We refer to the past as a warning for the future.

## Reviews and Notices of Books.

ON REST AND PAIN. Lectures Delivered at the Royal College of Surgeons of England, By JOHN HILTON, F.R.S., F.R.C.S., etc., etc. Second Edition. Edited by W. H. A. JACOBSON, F.R.C.S., etc. Cloth, 8vo., pp. 299, with wood-cuts. New York: Wm. Wood & Co., 1878. Wood's Medical Library of Standard Medical Authors.

THIS is the first volume of the series of Wood's Medical Library of Standard Medical Authors, and aside from a notice of the work itself, invites a word or two of comment upon the plan of publication and what may probably be expected of it. It will be remembered that some time since, W. Wood & Co. announced their intention of reproducing in this country the works of standard medical authors abroad at the exceedingly low price of one dollar per volume. That they have done all that they have promised thus far cannot be questioned, as the work is well printed, contains nearly three hundred pages, and is substantially and handsomely bound. Except for the marked encouragement which has already been received, the placing of such a work upon the market at such a price would be simply impossible, if not ridiculous. As it is, the profession may congratulate itself that the scheme is successful, and that for a merely nominal sum the practitioner has within his reach twelve exceedingly valuable volumes by standard authors. We are assured that the greatest care will be exercised in the selection of the works, and if the present is an index of the works of the future, there need be no more fear of the character of the authors than there will be of the cheapness and satisfactory style of the publication. Hilton on Pain and Rest is a work which has such an established reputation, that it is unnecessary to give any extended notice of it.

PRESCRIPTION WRITING, designed for the use of medical students who have never studied Latin. By FRED. H. GERRISH, M.D. Pp. 51. Portland, 1878: Loring, Short & Harmon.

A MANUAL OF PRESCRIPTION WRITING. By MATTHEW D. MANN, A.M., M.D. Pp. 155. New York, 1878: G. P. Putnam's Sons.

THESE are both capital little books, each better than the other in certain respects. The first gives the usual rules for prescribing, and, in addition, a few easy lessons in Latin, including the declension of all the officinal names of the Pharmacopœia which the physician must know if he desires to write his prescriptions with accuracy. Besides these, there are many excellent practical hints of value to every one.

Dr. Mann's book gives the general rules for prescription writing, a little Latin, together with the principal words and phrases used in prescriptions, with their pronunciation and abbreviations. Following these is a complete list of all the officinal and many non-officinal drugs, with doses both Troy and

metric. The work concludes with chapters on the combination of drugs and on incompatibilities.

Our only regret is that both books were not written by the same author, or that in the future they cannot be bound together, as each is the complement of the other, and should be in the possession of every student and physician in the country.

THE ANTAGONISM OF THERAPEUTIC AGENTS, AND WHAT IT TEACHES. The essay awarded the Fothergillian Gold Medal of the London Medical Society for 1878. By J. MILNER FOTHERGILL, M.D., Edin., M.R.C.P.L., etc. 8vo, pp. 157. Philadelphia: Henry Lea. 1878.

THIS is another of those practical, charmingly written and valuable books which the distinguished author has given to the profession. Although a small volume, it contains a rich mine of not only facts, but suggestions. It is another contribution to the scientific explanation of the action of medicines (toxic), which, till of late, have only been used empirically. The seeker after scientific facts, upon which to base a rational and more or less precise treatment, will find within the covers of this small, unpretending volume a very "fair bird's-eye view of the subject of the antagonism of toxic agents, so far as this is possible at the present time." The author divides his subject into two parts: the experimental inquiry, and the practical inquiry. The agents considered are aconite, atropia, ammonia, calabar bean, caffeine, chloral, digitalis, morphia, picrotoxine, prussic acid, strychnia, and some others incidentally. In the first part, many of the experiments (condensed), and the conclusions of Preyer, Frazer, Edinburgh Committee of the British Medical Association (Professor J. Hughes Bennett, Chairman), MacKendrick, Critchton Browne, Haynes (Philadelphia), finally, the author himself, are presented. Wood, Bartholow, Harley, Ringer, Lauder Brunton, and others are also referred to, especially the first.

Hermann's view of the nervous system as "a liberating force," and the action of certain nerve-centres as the rhythmical discharges (Wundt) serves for the explanation of the action of drugs upon circulation, respiration, etc., making Chapter V. especially interesting and worthy of every medical man's careful perusal. We cannot go into details, the book must be read to thoroughly understand its practical bearings and suggestions. We may say, however, that herein is found a full *résumé* of the author's essay on "Digitalis: its Mode of Action, and its Uses," now out of print. We most heartily urge practitioners to avail themselves of the immense amount of truly scientific and practical knowledge which can be derived from the work under review.

TRANSACTIONS OF THE MASSACHUSETTS MEDICO-LEGAL SOCIETY, Vol. I., No. 1. Cambridge: Riverside Press, 1878.

THE members of this society have every reason to be proud of their labors in the year gone by, labors towards perfecting an excellent system, and accomplishing the great end at which they aim. Every righteous man cannot but rejoice in the abolishment of the coroner system in the Bay State, and would gladly hail its demolition in every State in the Union, in every civilized country. The contents of the pamphlet before us are:

1. The law abolishing the office of coroner and providing for medical examinations and inquests in cases of death by violence.

2. Constitution and by-laws of the Massachusetts Medico-Legal Society.

3. Officers and members thereof.

4. An introductory address by the President, Alfred Hosmer, M.D., which points out the advantages to society which the new system of inquests and examinations will afford.

5. "The Relation which Chemistry Bears to Forensic Medicine," by Prof. E. S. Wood, M.D., is a short, though suggestive paper.

6. "The Value of Anatomical Appearances," by Prof. R. H. Fitz, M.D. As the author declares, "the object of the present paper is to refer very briefly to some of the general points to be borne in mind in making an autopsy, and to consider the group of changes found in a very common form of death—that from suffocation." This paper is a very valuable one.

7. "Concerning Coroners and the Theory and Practice of Inquests," by Theodore H. Tyndale, Esq., and

8. "The Work and Duties of the Medical Examiner," by F. W. Draper, M.D., two papers illustrating the new *versus* the old system.

9. "A Case of Arsenical Poisoning, with Fatty Degeneration of the Liver, Kidneys, and Gastric Glands," by J. G. Pinkham, M.D., a case of great interest, and remarks of considerable value.

10. Report of the Corresponding Secretary, including five full reports from medical examiners, which certainly should serve as models in recording inquests and examinations in cases of suspected violent death.

We cannot too forcibly urge our readers to peruse this little pamphlet, which so satisfactorily sets forth the immeasurable advantages of placing forensic medicine into the hands of specially educated and qualified medical men instead of coroners, as under the prevailing system.

PRACTICAL SURGERY: Including Surgical Dressings, Bandaging, Ligations, and Amputations. By J. EWING MEARS, M.D., Demonstrator of Surgery in Jeff. Med. Coll., etc., etc. 12mo. pp. 274, index, and 227 illustrations. Philadelphia: Lindsay & Blakiston. 1878.

THIS small volume contains a great deal of information upon the subjects of which it treats in a convenient and condensed form. Each division is well illustrated, thereby rendering the text doubly clear. Lister's "antiseptic dressings" are well described. The chapter on "Bandaging" is excellent; all the ordinary varieties, as well as Mayor's "handkerchief system," the starch, plaster-of-Paris, silica, and Sayre's suspension apparatus, are described and illustrated. "Ligations" are arranged under special heads for each artery, viz., Surgical Anatomy, Course, Surface Markings, General Relations, Guide, Structures to be Avoided, Operation. The illustrations of this subject are profuse and fairly good. "Amputations" is an equally good chapter. Especially useful are the representations of sections of the various extremities at different points, showing the structure.

TRANSACTIONS OF THE INDIANA STATE MEDICAL SOCIETY, 1878. Indianapolis: Indianapolis Journal Co., Printers.

THE President, Dr. L. D. Waterman, delivered an address upon "State Preventive Medicine," in favor of placing the prevention of disease in the hands of specially educated men who shall be responsible to and presided over by the State. A long and interesting review of the legal conflict which lately occurred in Indiana, relative to the right of medical *experts* to demand and obtain a *special* fee for their testimony *as experts* before giving such testimony or services, comes from Wilson Hobbs, M.D., under the heading of "The

Medical Witness." So far, we are glad to be able to say, the Supreme Court of Indiana has sustained the doctor's claim.

Dr. J. H. Hibberd, "Infantile Convulsions: What should be the Treatment during the Paroxysm?" contends that nothing further than protecting the child from self-injury, and giving a supply of air, should be done. Six cases of "Conservative Surgery," by L. Humphreys, M.D., and the "Report of Public Hygiene in Indiana," by Thad. M. Stevens, M.D. (Chairman), present nothing new or of special interest. The special interest in Dr. T. Fravel's article, "An Epidemic of Diphtheria," is found in his treatment of the disease. He has no great *faith* in the therapeutics, believing that very little beyond good nursing and hygienic measures is required, the fatality not being due to improper or inadequate treatment, but to the inherent individual impotence to throw off the impressions of the disease. The medicines used were: ℞. Potassæ permang., gr. iv.; Aquæ font., f. ʒ iv., M. Sig. Teaspoonful every two hours, day and night, alternated with a teaspoonful of the following: ℞. Ext. belladon. fl., gtt. viij.; Aquæ font., f. ʒ iv. The following gargle was used each hour between the above doses: ℞. Potassæ chlorat., ʒ ij.: Sodæ hyposulphit., ʒ ij.; Sodii chlorid., ʒ i.; Tr. capsici, f. ʒ (or alcohol, f. ʒ ij.); Aquæ font., f. ʒ vi. M. The throat was cleansed with warm water each time before using the gargle, and nothing taken into the mouth sooner than ten minutes afterward. "Topically I applied once in twenty-four hours equal parts of a strong solution of tannic acid and tinc. mur. iron. When the Schneiderian membrane was involved, I passed through the nostrils, once in three hours, by means of a nasal douche, from four to five ounces of a solution of permanganate potassa in very warm water, three grains to the pint. Milk and animal broths were freely given throughout the disease. In cases of very young children, eighteen months old and under, nothing but the potassæ and belladonna were used, and recovery followed as speedily as with the gargle and local treatment." The above formulæ are of the right proportions for children; for adults they might be increased. John S. Dare, M.D., claims that "nasal catarrh" is, in its *chronic* stage, *infectious;* not always, but in many cases.

Thos. J. Dills, M. D., reports a case of "Graves' Disease," in which he found large doses of digitalis especially useful. "On the Ætiology and Treatment of Unavoidable Hæmorrhage," and "Placenta Prævia," by G. W. Mears, M.D., and George Sutton, M.D., respectively, are two papers of practical interest. In the former the tampon, till the full dilatation of the os (the *membranes remaining unruptured*), with subsequent natural or instrumental delivery, is strenuously advocated as the best treatment. The best tampon is a sponge saturated with persulphate, perchloride, or pernitrate of iron, with charpie packing beneath, all applied through a speculum, says the author. This treatment is only applicable to the *unavoidable* variety, namely, that occurring *during* labor, and due to a separation of the placenta consequent upon dilatation of the cervix and os, and *when the membranes remain unruptured.* Dr. Sutton, however, would prefer to rely upon *forcible digital* (or by the aid of water-bags) *dilatation*, and, in certain cases, even *free incisions of the cervix*, followed by podalic version.

Two short papers, "An Epidemic of Small-Pox," by W. W. Blair, M.D., and "Upward Dislocation of the Sternal End of the Clavicle," by Joseph Eastman, M.D., the minutes of the transactions, and a list of members, close this interesting volume.

HORSEBACK RIDING FROM A MEDICAL POINT OF VIEW. By GHISLANDI DURANT, M.D., Ph.D., etc. Royal 12mo, pp. 137. New York: Cassell, Petter & Galpin. 1878.

THE first thing which astonishes the reader is how the author of this work could extend such a subject as this over 137 pages; but it is soon evident that the title is only partly appropriate, good as far as it goes, since metaphysics, history, physics, physiology, etc., are all thrown into the first chapter comprising only fifteen pages. The effects of exercise, the minutest details of the mechanism of horseback riding, the physiological effects of the same exercise on the animal economy, special and general, its therapeutical and hygienic effects, and, finally, "the origin and progress of horse-racing," are all treated of in so many distinct chapters. Dr. Durant undoubtedly believes horseback riding to be a most wonderful and potent remedy, when he says that syphilis "can be benefited by horseback riding. Nothing is more true, however." Altogether the work, although readable and interesting, is apparently written as much to give the author's views upon a wide range of medical subjects as for any other purpose. From a practical point of view the work has no special value.

NINTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF MASSACHUSETTS. January, 1878. Boston: Rand, Avery & Co., Printers to the Commonwealth. 1878.

LIKE its predecessors, this report is a model of excellence, industry, and practical worth. Among the excellent papers in this volume, we would call attention first to that on "Drainage and Health; Sewerage and Pollution of Streams, including a Draft of a Law." "Cottage Hospitals" is the title of an interesting paper by Dr. J. F. A. Adams, of Pittsfield. All who are interested in "Dangers from Color-Blindness" will find Dr. B. Joy Jeffries' (of Boston) paper interesting. He adds *seven* pages of bibliography to the paper proper. The importance of the "Filtration of Potable Water" receives due attention from Prof. Wm. Ripley Nichols, M.D. "Sanitation of Public Schools in Massachusetts," by D. F. Lincoln, M.D., should be carefully perused. A highly valuable article on "Scarlet Fever" is from the pen of A. H. Johnson, M.D. The description and drawings of the disinfecting establishment (hot-air) in operation in Liverpool, England, makes this paper doubly valuable.

The relation of drainage to diphtheria, typhoid fever, etc., closes this valuable contribution to State medicine.

THE PATHOLOGICAL ANATOMY OF THE EAR. By Prof. HERMANN SCHWARTZE, M.D. Translated by J. ORNE GREEN, M.D. Boston: Houghton, Osgood & Co.

THIS small book of 174 pages is, as the translator states in his preface, "the only comprehensive work strictly devoted to the pathological anatomy of this organ" (the ear). It is a carefully prepared catalogue of all the pathological changes that are known to have taken place in the ear. In many portions it is more than this; the actual pathology of the disease is described, its relative frequency is stated, and full references are given to the sources from which the information has been gathered.

The beginner will perhaps find the book a little dry, but to those who have occasion to treat diseases of the ear it will prove a most useful work of reference, enabling them to interpret rightly the different pathological states which from time to time come

under observation. Individual theories occupy a minimum of space in the book, while the firmly established pathological facts are set forth in clear and simple language. The translation has been well done. Numerous woodcuts aid in elucidating the text, and the typographical work is excellent.

TRANSACTIONS OF THE PATHOLOGICAL SOCIETY OF PHILADELPHIA. Vol VII. Edited by J. HENRY C. SIMES, M.D. Philadelphia: J. B. Lippincott & Co. 1878.

THIS handsomely-bound and printed volume is a valuable contribution to pathology. The subject-matter is arranged under appropriate headings, such a classification materially adding to the convenience of reference. Each report is as concise as a proper presentation of the case or specimen would allow. The work opens with some interesting reports of lesions of the osseous system. Especially worthy of notice is Art. 8: "Intracapsular Fracture of the Femur—Thrombosis of the Left Femoral Vein Extending to the Vena Cava," by Dr. J. C. Wilson. Quite a number of cases of cancer of the digestive organs are recorded. "Case of Mitral, Tricuspid, and Aortic Disease, with Pulsation of the Liver, and Pericardial Adhesions," by Dr. John Guitéras, is of special interest *per se*, and on account of the remarks made upon the case. Dr. James H. Hutchinson gives an account of a very interesting case of "Interstitial Nephritis, in which there were Marked Retinal Changes, Pericarditis, and Pericardial Effusion." We must call special attention to "Specimens Illustrating a Case of Extra-Uterine Pregnancy," by Dr. Frederick P. Henry, which is illustrated by two very fair drawings by Dr. C. B. Nancrede. This was of the abdominal form of ectopic gestation. Dr. E. O. Shakespeare gives quite a long account of the histological appearances of the specimens.

Another case and specimen of abdominal pregnancy is here presented by Dr. Wm. Pepper, also illustrated by two woodcuts from the same draughtsman. Both these cases are of considerable importance and practical interest.

A case of "Elephantiasis of the Penis" is reported by Dr. F. Duffy, of Newbern, N. C. Some very practical remarks are made by Dr. Harrison Allen upon "The Anatomy of the Cerebrum."

A case of "Cerebral Abscess and Dilated Bronchi," by Dr. J. H. Hutchinson, will bear careful study on the part of our readers. The history and autopsy are detailed at length, the diagnosis was particularly shrouded in obscurity, and the remarks of Drs. Pepper and Allen are of interest.

Dr. Morris Longstreth calls attention to the advantages of Prof. Wm. Rutherford's freezing microtome.

An excellent article by Dr. Charles B. Nancrede, on the pathology of malignant morbid growth, concludes this interesting work. We have only mentioned the few more important papers (as they seem to us) of this volume, and have given but a faint idea of its value. We recommend all those interested in the subject of pathology to add this handsome book to their collection.

PILL-COATING.—The process of pill-coating of M. Raquin (reported to the Academy in 1837), namely, by a layer of *gluten*, is said to be superior to that by gelatine, since the pills or capsules pass by the saliva and gastric juice unaltered, to be acted upon by the intestinal juices, through absorption taking place. Such remedies as oils of copaiva, turpentine, etc., are not, therefore, eructated.

# Reports of Societies.

## NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, December* 19, 1878.

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

### THE OPERATION FOR LACERATION OF THE CERVIX UTERI, OR THE INDICATION FOR HYSTERO-TRACHELORRHAPHY.

DR. PAUL F. MUNDÉ read an interesting paper upon the above subject, of which the following is a brief abstract:

Reference was first made to the history of the operation. Papers descriptive of the lesion and its operative cure had been written by Emmet, Pallen, Wing, Baker, Breisky, Dudley, and others, and upon careful perusal of them, with their accompanying diagrams, Dr. Mundé was confirmed in the impression that all those authors had written only of *complete* laceration or fissure of the cervix, either unilateral or bilateral, with a rolling out of the lips of the cervix up to the vaginal reflection; the cervix presenting the appearance of an eroded surface two inches or more in diameter.

Those were the typical cases of the lesion, and no experienced and unprejudiced observer could, at the present day, entertain a particle of doubt regarding the efficacy of Dr. Emmet's operation and method of treatment. But so uniform as was the acceptance, by all the initiated, of Emmet's operation for those graver forms of the lesion, even so greatly divided did the profession still seem to stand with reference to the exact point when a laceration and erosion of the cervix required operation, and when it was still curable by topical applications, such as astringents, caustics, or cautery. The uncertainty was not confined to *medical* gynæcologists proper, but even some of the leading uterine surgeons had expressed the opinion that the minor degrees of laceration and erosion did not require operation, as they were too insignificant to be productive of evil, or could be cured by mild astringents. On this point Dr. Mundé referred to the protest which Dr. Chadwick, of Boston, had made against the impression unintentionally conveyed by Dr. Wing, that these lesions were curable only by operation.

Further reference was made to views entertained by Drs. Barker and Jacobi, of New York, as published in the MEDICAL RECORD. (See pp. 193–196, Vol. XIII., 1878.)

In Europe, with but few exceptions, the existence of laceration or fissure of the cervix as a distinct lesion, requiring recognition and treatment, appeared scarcely to have dawned upon the profession. With almost wilful neglect, it would seem all mention of the affection was omitted in the two latest books on gynæcology, Barnes and Leblond. While the author of the paper admitted that slight laceration or nick of the cervix, without ectropium, and with normal mucous surfaces—or even deep fissures without eversion—or deep lacerations with eversion, but with the whole everted cervical mucosa cicatrized and smooth, in no wise called for operation or other interference (except there was cervical neuralgia from inclusion of nerve-filaments in the cicatrix), yet his experience decidedly warranted him in claiming that there were numerous cases of minor degrees of cervical laceration and eversion in which the plastic operation was

the most safe, sure, and rapid therapeutic measure for the relief of the local disease. The cases were classified as follows:

1. Slight lacerations, which ordinarily gave no trouble whatever, but in which, under the influence of friction against the posterior vaginal wall (the uterus often being subinvoluted and depressed), the trivial ectropium became a profusely secreting ulcer, gradually spreading into the cervical canal, and producing the familiar muco-purulent tenacious plug projecting from the fissured os.

2. Slight lacerations, perhaps not ulcerated, and non-productive in themselves of local disturbance, but still acting through the gaping and everted os, as chronic feeders of the subinvolution and hyperplasia, against which we all acknowledged our boasted therapeutics, local and constitutional, to be ordinarily of little avail.

3. Cases of hyperplastic or cystic ectropium of one lip in which a raw, ulcerated surface, often one-half to one inch in diameter, took the place of the lip. To excise that redundant and useless piece of tissue, slightly pare the edges of the broad cervix, and restore the normal transverse os, was certainly a much neater way of curing the difficulty than by the tedious cautery.

4. Cases of laceration of the endocervical mucous membrane, with comparatively slight injury to the border of the os, which, however, was patulous and funnel-shaped, often admitting the point of the index finger, and frequently everted and eroded (Barnes, Fig. 117). The gaping os was usually filled with a muco-purulent, tenacious plug, the result of endocervicitis from exposure, and the patient complained of the symptoms peculiar to that condition. There also the strong caustics failed, or were tedious.

5. We were all familiar with the difficulty experienced in curing large granular and follicular erosions of the cervix by caustics. Why not, then, hasten the cure by removing the diseased mucous membrane, and uniting the healthy edges by sutures, as was done in Emmet's operation? He was confident much time could thus be saved.

Dr. Mundé did not deny the statement that the majority of *fresh* cervical lacerations would get well merely with cleanliness and the recumbent posture, nor that many cases could be cured by the treatment advocated by Drs. Barker and Jacobi; but he would ask, What was the advantage of subjecting patients to a treatment extending over weeks and months, and confinement to a recumbent posture for two or three weeks, enlivening the monotony of that course by the occasional application of the actual cautery, when all that could be obtained (the wound closed, the cervix restored to its normal shape, and the uterus certainly diminished *somewhat* in size) after less than two weeks' confinement in bed by an almost entirely safe, simple, and comparatively painless operation?

That the operation was comparatively devoid of danger had been shown by the statistics of the New York Woman's Hospital. That the operation occasionally failed was true, but failure was chiefly due to the lack of preparatory treatment, to insufficient paring and careless adaptation of the wounded surfaces, and to influences not under the control of the surgeon. A second operation usually cured the case.

During the past year he had twice performed the operation for lacerations, in both of which cases the indication was not the *extent* of the injury, but the irritation exerted on the hyperplastic uterus by the friction of the everted surfaces, and the beneficial influence to be expected for the reduction of the enlargement. Those indications were confirmed by Dr. Thomas, who saw the ladies with him in consultation.

After giving the history of the two cases mentioned, Dr. Mundé stated that the object of his paper was to demonstrate, not that *every* laceration of the cervix should be operated upon as a duty, for he believed that a certain proportion of those lesions either did not require any treatment, because they produced no symptoms, or, in a lesser proportion, were amenable to caustic and astringent applications—but that there was a very large class of cases in which the operation was called for, not by the extent of the injury, but by the symptoms which it produced and the pathological conditions which it aggravated or maintained. Those cases have been stated above.

He further thought that we should soon be able to operate on those slighter cases of laceration and eversion at our offices or at the Dispensary, send them home by the cars, and let them go about their ordinary avocations (avoiding unusual exposure, of course), to return for the removal of the stitches at the end of a week. The absence of etherization, and the use of silk instead of wire, materially simplified and shortened the operation. When it had once been demonstrated that that plan was followed by success as regarded union, then the great objection to the operation among the poorer classes—the confinement to bed—would be removed, and old cases of cervical ectropium should disappear from our clinics. Still, he considered the recumbent position during convalescence as a most important factor for the ultimate results of the operation, and one always to be insisted upon when feasible.

In conclusion, Dr. Mundé referred to the experience upon which his remarks and conclusions were based. The percentage of lacerations observed by him at the out-door department of the Mt. Sinai Hospital during the last two years was 17 per cent., and served to illustrate very aptly a remark made by Dr. Barker, on the occasion above mentioned, "that the lesion occurred with vastly greater frequency in persons who had had neither skilled obstetrical attendants nor the care and rest required after confinement, since in his own practice, confined to the more wealthy classes, he had met with this accident in but two well-marked cases."

That the high percentage was not accidental or confined to the class of patients which appeared at the hospital, was confirmed by the experience of Dr. Goodell, of Philadelphia, who inferred that about one out of every six women suffering from uterine trouble had an ununited laceration of the cervix.

The paper was illustrated by colored plates of the various forms and degrees of laceration and ectropium of the cervix uteri, prepared from nature by Dr. A. H. Friedenberg, House-Physician to Mt. Sinai Hospital.

The paper being before the Academy for discussion,

Dr. T. A. Emmet remarked, with reference to the frequency with which the lesion occurred, that, as well as he could recollect, in about 34 or 35 per cent. of all the cases of uterine trouble he had seen since 1862, he had recognized laceration of the cervix. He was disposed to take exception to the statement that the lesion was found most commonly among the poor, for in his private practice, which he supposed was among as good a class of people as the average practitioner obtained in his department, he had seen the lesion more frequently than in the Woman's Hospital, if those cases were included in which delivery was made by instruments.

There were only certain conditions of laceration of the cervix which called for operative interference, for he supposed that the cervix uteri of every woman,

with the birth of her first child at least, was more or less lacerated during parturition. If the laceration took place from before backward, or deviating from that somewhat, it usually healed before a month was passed, and gave no trouble.

It was only when the laceration was lateral, so that involution was arrested and the uterus laid upon the floor of the pelvis, the posterior flap getting into the cul-de-sac and the anterior sliding forward into the axis of the vagina, thus producing gaping and keeping up hypertrophy, that the operation was required. In such cases there probably was no relief, except by operation, or filling the gape with cicatricial tissue by the work of nature.

Dr. Emmet wished to lay special stress upon that point. At the time he wrote his last paper he supposed the eversion was the chief cause of the difficulty; but he now regarded it as the least. There were conditions in which the flaps gaped like the separation of two fingers, and nature would attempt to fill that gape with granulations. She might so succeed that only a slight rolling out of the tissues of the cervix could be seen, a condition which had been regarded as too slight to require interference. But those were the cases which required the operation even more than those in which eversion was a prominent symptom, and for the following reason.

When the gape was partially filled with cicatricial tissue, the circulation was obstructed and would remain so until such tissue was removed. If, therefore, the edges were denuded and brought together over the cicatricial plug, even though union might occur, cure would not be effected, and the woman would remain an invalid. In fact, the uterus would increase in size, or absorption take place, and the operation fail.

With regard to the cicatricial tissue, when it nearly filled the gape, most operators would say that an operation was uncalled for, recognizing the necessity for an operation simply by the fact that the edges of the fissure were rolled out, and not recognizing the necessity of removing that plug. The cervix was poor in blood vessels and nerves, but it was covered with erectile tissue in which were found fibres of the sympathetic system, and the sympathetic nerves presided over nutrition as well as over the organs of generation during the menstrual period, say from the age of fifteen to forty-five.

Dr. Emmet held that the cicatricial tissue there was a source of irritation, apart from the gaping, and apart from its effect upon nutrition, and consequently it gave rise to excessive anæmia, which continued until the woman ceased to menstruate. The anæmia was persistent, and at the change of life nature went to work, to set the house in order as it were, and absorbed all that cicatricial tissue, and put the uterus in a condition in which it might rest quiescent for the remainder of life.

Very often nature was not competent to bring about absorption of the cicatricial tissue, and then followed a development of epithelioma. Dr. Emmet felt satisfied that such result obtained, although he was not able to prove his position. He believed that epithelioma of the cervix uteri always arose from an unsuccessful effort on the part of nature to remove such cicatricial tissue. He took that view from the fact that of eighty or ninety cases of malignant disease of the cervix which he had collected. there was only one occurring in a woman who had not been impregnated, and he had not seen any one who could say that he had seen such a case.

The histories, almost without exception, dated back to some labor of unusual severity and delivery by instruments, and the natural inference was, that in such cases laceration of the cervix had occurred. In some of the cases laceration had been recognized years before they came under Dr. Emmet's observation; in most instances, however, it was not recognized.

Dr. Emmet further remarked, he had always held that the operation was the last resort, and not that every case should be operated upon. The operation was simply for the purpose of keeping what was obtained by other treatment. The woman should be put into the best possible condition, and then, in extreme cases, if the operation was performed, the woman was cured permanently.

Dr. Chamberlain expressed his concurrence with the statement of the paper that, even if the visible lesions of eversion, hyperplasia, cystic degeneration, etc., were in many cases curable without the operation; yet if they were more quickly, certainly, and completely cured by the operation, as he believed they often were, then the operation was expedient and to be advised. In the minor cases of comparatively recent laceration, it was so easy and so little painful or dangerous, that there was no valid argument against it. It was not an operation of mutilation, but of repair.

Like Dr. Mundé, he had twice done it without the aid of an anæsthetic.

It was constantly done so as to be free from any constitutional reaction. There were one or two points in the technique to which he alluded, and although they might not be original with him, yet he had not seen them mentioned in print or known of their employment by others.

The greatest difficulty which he had experienced was in making sufficiently thorough excision of the angle at the bottom of the fissures. When all the tissues were oozing, it was difficult to be certain that there was not left some band or island of mucous surface undenuded.

That difficulty was greater in proportion as we operate high up in the vagina, and less in proportion as the cervix was brought down near the outlet.

In order to obtain full control of the uterus, he had, in bilateral laceration, sometimes passed a wire deeply through the cervix on either side, leaving between the two an interval corresponding to his idea of the proper size of the cervical cavity. Those wires were made to pass so deep as not to emerge in the fissure, but could be uncovered by a slight incision of the floor of the fissure. When so found, the wire was caught with a tenaculum, and a long loop pulled up from the bottom of the fissure. Those loops were then cut, and thus we had a loop in the anterior and another in the posterior lip on either side of the cervical canal. Thus the cervix might be easily drawn down to the vulva, the speculum become unnecessary, and every portion of the fissure, successively, might be made to present and kept perfectly steady until it was denuded. When that was done, the wires were joined where they had been cut, the loop was drawn straight, and thus the two first and most important stitches were placed just where they should be. As many more as were needed were then easily passed on either side.

He also mentioned an observation on the physiology of the changes which occurred in these cases. He had very constantly noted that, if the curve of the lines of fissure was upward, then the eversion and the hyperplasia was of the anterior lip; if downward, of the posterior. That meant, he thought, that the derangements of nutrition affected that portion of the cervix in which the circulation had been most impaired.

DR. GILLETTE thought it important to consider how these lacerations could be prevented, and believed that we had reached a period in the study of the injury which permitted us with propriety to consider that question. Undoubtedly laceration of the cervix in the parous woman was a physiological condition up to the degree which was short of eversion of the cervix, or of that hyperplastic condition described by Dr. Emmet.

The operation had become so popular, and was so easily performed, that in his experience it was being done in cases in which there was no real necessity for it. It was the habit of some physicians to sew up every lacerated cervix which could be discovered, without regard to pathological phenomena associated with it. He thought that a warning voice should be lifted and a line of distinction be drawn as to when the operation should be performed, and in that respect the author of the paper had made a valuable suggestion.

In some instances he had known of the operation being done immediately after delivery, and practically he was not able to see why it should not be done at once. We did not hesitate to close a lacerated perineum at once, and why we did not do the same with a lacerated cervix was probably because we did not take the time or were afraid of the consequences. Whether it was an advisable operation or not, at that time, he was not willing to say from his own observation or from what he had heard, but he thought it was worthy of trial. It had occurred to him that if the plastic operation could not be performed, perhaps some instrument could be devised which would hold the lacerated surfaces in contact. According to the suggestion made by Dr. Emmet, and subsequently by Dr. Skene, he had used what was known as the preparatory stitch in cases in which rapid absorption of the hyperplastic tissue could not be obtained; but in instances in which there was considerable eversion and hypertrophy, the stitch was apt to tear out.

Recently he had resorted to a rather novel method of treatment, which consisted in seizing the torn cervix with two tenacula, drawing the lacerated surfaces together, and then slipping over the handles and around the cervix an ordinary rubber strap. One week afterwards he found that the compression made by the band had acted in a very favorable manner. From his experience in that case it had occurred to him that, perhaps, a bandage which could be used in recent lacerations might be constructed. At all events, he felt inclined to determine whether it was safe to try to cure these lacerations during the puerperal period.

DR. H. T. HANKS remarked that he had been specially interested in the statistics given by Dr. Mundé, for he had found by consulting the books in his department at the Demilt Dispensary, that the percentage of cases of laceration of the cervix was less than it was when he gave it at the time Dr. Emmet read his second paper. Of 881 women treated in that institution for diseases peculiar to the sex, only about *six* per cent. suffered from laceration of the cervix. When he made his former report, the percentage was between *eight and nine* per cent. The subsequent reduced percentage he ascribed to the fact that young physicians had kept their patients in bed after confinement, and taken better care of them than formerly. In that particular the teaching had been more careful than formerly. Consequently, the lesion had partially or wholly cured itself before the woman assumed a position which favored its continuation.

Dr. Hanks also thought that the remarks made by Drs. Barker and Jacobi, and already alluded to, had had an excellent effect, although at the time he was opposed to some of their conclusions. For he was certain that he had operated in some cases in which the patient was not placed in a proper condition by preparatory treatment, notwithstanding Dr. Emmet had justly called attention to that special point. The doctor also thought that we should know, as suggested by Dr. Gillette, if there was not some way to prevent the occurrence of the laceration. In this connection he believed that when the young men were taught to interfere less with the cervix during labor, we should have a less number of lacerations. If that was a fact, we should understand it, and bring it into daily application.

Again, in cases in which it was known that laceration of the cervix was present, it was well, after the fifth, sixth, or seventh day, to insist that the woman should lie prone instead of retaining the dorsal decubitus. For, by so doing, the lacerated cervix would be prevented from brushing the floor of the vagina, and thus the tendency to eversion could be prevented.

DR. GILLETTE remarked that he did not think management of the first stage of labor could be regarded as a factor in the diminution of the percentage of cases of laceration of the cervix. For the lesion was much more frequent a few years ago than now, but the usual teaching then was to do nothing in the first stage of labor. As he understood the subject it was the teaching of the present time to hasten labor by proper manipulation for the purpose of facilitating dilatation of the cervix.

DR. EMMET'S views upon the question were asked for, and he replied that he was unable to answer the question from any personal experience. He was satisfied, however, that with proper care a great many of these cases could be prevented from coming to a surgeon for an operation. For if the precaution was taken to wash out the uterine cavity after any difficult labor, and to use hot water freely so as to cause the uterus to contract more than it would naturally do in those cases, the result, doubtless, would be that in a large proportion the laceration would heal which otherwise would make the woman an invalid for years.

Without personal experience regarding the effect of hot water upon a lacerated cervix, he reasoned thus, by knowing what effect could be produced upon diseased tissue by that agent.

Reference was made to cases of vesico-vaginal fistula of large size which had closed without any treatment save cleanliness secured by vaginal injection of hot water, and he believed that if such precaution was taken after labor the number of cases of laceration of the cervix, and other conditions, would be very much diminished.

In closing the discussion,

DR. MUNDÉ remarked, that it was not his object in his paper to consider questions which had already been thoroughly discussed with reference either to pathology or to treatment. His object was simply to bring out certain indications which had not yet been presented for discussion.

He regarded the suggestion made by Dr. Chamberlain as an excellent one, and was quite sure that he had seen Dr. Thomas manipulate in very much the same manner, except that he took only one lip. Dr. Goodell, of Philadelphia, had also spoken of the same manipulation.

With reference to Dr. Gillette's suggestion concerning the use of a rubber band, he thought it would be an excellent aid in the treatment of old lacerations, but he was not able to understand how it could be

employed immediately after confinement; for, if applied loosely, it would slip off from the cervix, and if applied tightly it would interfere with free discharge of the lochia. He also thought that an operation immediately after confinement would not be practicable, except, perhaps, in hospital practice.

The Academy then adjourned.

## Correspondence.

### THE PUBLIC HEALTH ASSOCIATION AND YELLOW FEVER.

To the Editor of The Medical Record.

Sir:—The influence which the recent meeting of the American Public Health Association is to have upon the future history of yellow fever, and upon medical opinion concerning the etiology of the disease, cannot at present be predicted, but it is to be hoped that the large and well-selected committee appointed may prove to be, as they ought to be, a controlling power so far as national legislation is concerned. That national legislation is urgently demanded, both by public sentiment and by the lamentable experience gained in the past at the expense of thousands of lives and millions of money, is, I think, the firm conviction of a large majority of those who were present at the Richmond meeting of the Association.

Dr. Choppin, the distinguished President of the Board of Health of Louisiana, who, from his experience and official position, speaks with an authority second to that of no other man in the United States, has the courage to use the following language in his report upon the recent epidemic in New Orleans:

"We in Louisiana, operating under a quarantine law not absolute in its restrictions, after an earnest effort in executing it, conducted with all the honesty and energy at our command, assisted by incorruptible quarantine officials, have utterly failed in preventing the importation of the pestilence which has thrown gloom and sorrow over our whole Southwestern Valley. No *conditional* quarantine can ever be made effective, because, first, of the laxity with which laws are unfortunately executed in this country; and secondly, because of the cupidity of commercial interests at stake, which will always move heaven and earth to evade successfully all quarantine laws and regulations."

I think I may safely say that a large majority of the members and delegates present agreed upon this practical point, viz.: that yellow fever in the United States *usually* results from the importation of *cases* or *fomites*, and that such importation can be prevented by *proper* quarantine restrictions. I think it is even safe to say that a majority were of the opinion that yellow fever *never* originates in the United States; but no vote having been taken upon the proposition, formulated by a committee, which embodies this view, I cannot be sure that I am right. The objection made to submitting this question to a vote was that the Yellow-Fever Commission had not yet completed its labors, and it was suggested that the discussion of the question be postponed for one year. This would have been a very proper suggestion if yellow fever had appeared in the United States for the first time in 1878; but the epidemic of 1878 is, unfortunately, only one of many, and counts no more in settling this question than an outbreak of which the victims can be counted on the fingers. The literature of yellow fever is rather extensive, and many of those present at Richmond had witnessed numerous epidemics. We had listened to Dr. Choppin's able paper giving a clear account of importation to New Orleans in May of the present year; could we not, then, have been allowed to express our opinions in regard to this matter? Never in the history of the country has there been an assemblage of men so well qualified to give an opinion upon this subject; but they were not to give expression to their opinions because the Yellow-Fever Commission had not completed its labors.

I regret very much that the late hour at which this proposition came up for discussion made it necessary to accept a compromise amendment, which restricted the expression of opinion to a belief in importation, for the present year. I regret it chiefly because it gives color to the prevalent popular belief that the doctors know little or nothing about yellow fever, and that the late epidemic has upset all preconceived theories and opinions, and left us all afloat. Now, I claim that the etiology of yellow fever is as well settled as is that of typhoid or remittent fever, and that those in and out of the profession who are still in doubt as to how epidemics of yellow fever originate and progress may obtain reliable information upon the subject by consulting such standard medical works as Flint's Practice, Ziemssen's Cyclopædia, and Reynolds's System of Medicine. All of these works give about the same account of this matter—an account which agrees with the facts and with the opinions of the best informed physicians in latitudes where the disease frequently prevails. Prof. Flint sums up our knowledge of the etiology of yellow fever as follows:

"To sum up the most important points relating to the causation, an unknown special cause—a poisonous miasm—is involved; the doctrine that this special cause is reproduced within the body does not rest upon adequate proof; the special cause demands for its development or efficiency conditions peculiar to certain localities, and a high temperature is an essential condition. Auxiliary causes which exist, especially in cities or large towns, exert a powerful agency in the production and perpetuation of the disease, and by the removal of auxiliary causes, epidemics may be prevented or divested of much of their fatality. Finally, the special cause may be transported by means of infected vessels, or fomites, and, in conjunction with a high temperature and auxiliary causes, the disease may prevail in places where it is not indigenous."

This is, I think, as clear and definite a statement as can be made concerning the etiology of the more familiar diseases above mentioned. I heard nothing at Richmond which will, in my opinion, make it necessary for Prof. Flint to make any change in the wording of this summary, and, so far as I can learn, the epidemic of 1878 does not materially differ, except in extent, from those which have preceded it.

In a recent number of the London *Lancet* (October, 1878), Dr. Robert Lawson, Inspector-General of Hospitals in the British army, makes the following sensible remarks:

"It is worthy of observation that the great majority of the members of the profession who have resided some years in the tropics, and had constant experience of yellow fever, entertain the first opinion (that it arises from local causes, and not from personal contagion), and it is only among those who have met the disease occasionally, or who have never been brought in contact with it, that the second is generally re-

ceived (personal contagion). It is not creditable to the medical profession that this question remains so undefined . . . . ."

In the same paper Dr. Lawson gives the following instructive account of an outbreak of the disease on the ship Isis at Sierra Leone: "In 1865 yellow fever prevailed at Sierra Leone, and the Isis, receiving ship, which had been there some years, had several cases on board, of which the last two were attacked on the 16th and 18th of December, respectively, and both died on the 21st. A few days after, H. M. S. Bristol, with a crew of 535, arrived from England, and instead of running up to Freetown as usual, anchored in the open sea five miles from that place. It having been considered that the position of the Isis was unhealthy, a party of four officers and 112 men were sent from the Bristol on the 28th and 29th of December, to remove her to a healthier one. The party returned to the Bristol each night without going on shore. Fever commenced among the men of this party on the 31st December, and, up to January 6th, thirty-seven were attacked, and there was another on January 12th, the last which occurred. Of these 21 died on board from January 3d to January 10th, and two subsequently at Ascension. Twenty-nine cases were classed as yellow fever and nine as remittent. In the former the urine was highly albuminous in every case in which it was examined, loaded with tube-casts, epithelium, and blood-cells, and black vomit was frequent, which conditions, as well as the rapid course of the disease and its enormous mortality, stamped it as malignant yellow fever. Two officers and one man of the Bristol, not of the working party, also went on board the Isis, and subsequently had fever. *All the attacks occurred in the Bristol, but no one suffered who had not been on board the Isis.* The best measures the circumstances permitted were taken to limit the exposure of the healthy among the Bristol's crew to the emanations from the sick, but five medical officers, and twenty-four men employed as nurses, were in constant and close communication with them, and fully exposed to whatever chances of contracting the disease these circumstances might involve."

This is but one of thousands of examples which prove clearly that yellow fever is contracted, not from the sick, but by exposure to an infected locality.

The facts observed and recorded by myself for four minor epidemics fully support this statement, and the matter is so thoroughly settled that in future investigations, it seems to me, we should turn our attention to the discovery of the unknown special cause and to careful estimates of the comparative value of the auxiliary causes, with reference to the exclusion of the former, and, so far as practicable, the removal of the latter.

GEO. M. STERNBERG,
Surgeon, U.S.A.

FORT WALLA WALLA, W. T., Dec. 18, 1878.

## CYSTITIS AND THE USE OF ACIDULATED WATER.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Noticing in your issue of December 28th a communication from the hands of Dr. W. H. Bramblett, of Newbern, Va., on the treatment of "atony," and "dilatation of the bladder," "cystitis," etc., with cure of two cases from the use of "acidulated water," made by the addition of cider vinegar to a quantity of cold spring water of "about 75° to 80° F.," etc. The writer seems to find fault with Dr. Van Buren, while he apparently lays himself open to a similar charge, in not stating the quantity of cider vinegar used in proportion to the four ounces of water. We would like to be informed on these two points; as also, where he obtained "cold spring or branch water" at a temperature of 70° or 80° F.?—(was the water first warmed?)

In conclusion, we would suggest a query in regard to the antiseptic properties of cider vinegar. Is not the action of the agent here used, namely, cider vinegar, rather a *chemical* than a *medicinal* one? Is not the ammoniacal state of the urine an alkaline condition, and does not the acetic acid contained in the cider vinegar neutralize the ammoniacal condition, and thus remove the exciting cause? This method of treating, and rousing up the latent energy of the organ, has been known to the writer for many years; and also the simple cold-water injections, which by their presence seem to excite the latent functional power of the organ, and thus stimulates to its contraction.

Respectfully,
C. H. VON TAGEN, M.D.,
Chicago, Ill.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from December* 29, 1878, *to January* 4, 1879.

BARTHOLF, J. H., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Alcatraz Island, Cal., and to report for duty on January 2, 1879. S. O. 187, Div. of the Pacific and Dept. of California, December 19, 1878.

# Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending January 4, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| Dec. 28, 1878. | 0 | 20 | 181 | 0 | 3 | 61 | 0 | 0 |
| Jan. 4, 1879.. | 0 | 11 | 224 | 2 | 2 | 73 | 0 | 0 |

GEO. W. CALLENDER, F.R.S., OF LONDON.—Prof. H. B. Sands gave a reception at his residence to Mr. Geo. W. Callender, of London, on the evening of Jan. 5, 1879. A large number of distinguished members of the profession were present, representing all the medical colleges, hospitals, dispensaries, as well as a number of leading private practitioners. On Saturday Mr. Callender visited Bellevue Hospital Medical College, and was persuaded by Prof. Sayre to make a few impromptu remarks. These have been presented in lecture form to our readers, in another place, page 25.

A NEW COURSE ON DIDACTIC DERMATOLOGY AT THE UNIVERSITY OF PENNSYLVANIA.—Dr. Louis A. Duhring is at present engaged in delivering a course of didactic lectures on dermatology at the hospital of the University of Pennsylvania. The lecture hour is

between 4 and 5 on successive Saturday afternoons. The Dr. illustrates his lectures with rich specimens from his own private collections and from the George B. Wood collection in the Museum of the Medical School.

MEDICAL SOCIETY OF STATE OF NEW YORK—Delegates to and members of the Medical Society of the State of New York, who propose to present papers at the next annual meeting, will confer a great favor on the president and secretary, by sending, before January 15th, the title of their proposed papers, with the time they will occupy in reading them, to Dr. D. B. St. John Roosa, 20 East Thirtieth Street, New York.

NEW YORK ACADEMY OF MEDICINE.—At a stated meeting, held January 2, 1879, Dr. Fordyce Barker was elected President; Dr. James R. Leaming, Vice-President; Dr. S. S. Purple, Trustee; Dr. Charles Wright, Treasurer of the Board of Trustees; Dr. F. V. White, to serve in the Committee on Ethics; Dr. E. H. Janes, Committee on Admission; Dr. J. H. Hinton, Committee on the Library; and Drs. F. H. Hamilton and C. W. Packard, Committee on Education.

A memoir of the late GEORGE WILKES, M.D., was read by Dr. Charles Wright. In the course of the memoir reference was made to the fact that Dr. Wilkes assisted Dr. Valentine Mott, who first successfully amputated at the hip-joint, and that the head of the femur was not disarticulated until the first dressing of the stump was made.

At the next meeting of the Academy, Jan. 16th, Dr. S. S. Purple, the retiring President, will deliver his valedictory, and Dr. Fordyce Barker, the President-elect, will give his inaugural address. It is requested that there be a full attendance, as some interesting and practical suggestions are to be offered, bearing upon the continued usefulness and future prosperity of the organization.

CHARITY HOSPITAL.—The Medical Board of Charity Hospital held their annual meeting for the election of officers at the New York Academy of Medicine, January 2d. The following officers were elected for the current year: President, Dr. Joseph W. Howe; Vice-President, Dr. Elsberg; Secretary, Dr. Robinson. Committee of Inspection: Drs. Frankel, Goldthwaite, Ely. Committee on Examination: Drs. Gillette, Howe, Otis, Ripley Robinson.

QUININE AND URTICARIA.—John Hunter, M.B., Millbrook, Ontario, writes: "Dr. Lente's article, in a recent number of THE MEDICAL RECORD, reminds me of two of my patients who were unusually affected by quinine in single doses of ten grains each. Both were females. The first was suffering from a severe attack of urticaria. She had taken other treatment for it. Quinine in above dose gave prompt relief, which lasted for some months. The second had symptoms of malarial fever. Gave her ten grains. She suffered the most intense pain in the head and in different parts of the body, with great prostration. She said it affected her in the same way some years before. These cases happened in my first year in practice. I was not aware then of the effects being of any special interest, otherwise I would have taken much fuller notes."

DEVIATION IN THE DEVELOPMENT OF THE VOCAL CORDS.—Dr. J. P. Creveling, of Auburn, N. Y., writes: "I trust the following description of a deviation in the development of the vocal cords will be of sufficient interest to merit insertion in your journal. The subject was a male Indian, about thirty years of age, who died of tubercular deposit in lungs, with pneumonia. The larynx was removed entire, and divided posteriorly from above downward, between the arytenoid and through the cricoid cartilage. Folding the sides of the organ outward, a limited deposit of tubercular material was observed in the lower portion, mostly confined to the right side. The right vocal cord presented nothing unusual; the left was divided at its posterior third into a superior and an inferior fasciculus, the former passing upward and backward to the false cord, its fibres running parallel with and being inserted in common with that ligament at the anterior surface of the arytenoid cartilage. The inferior extended backward, and was inserted into the anterior angle of the same cartilage as usual.

The mucous membrane being carried upward along with the superior fragment, a third ventricle was formed, which was about one-third the normal size, covered with mucous membrane, and rather oval in shape. The free margin of the right vocal cord measured seven-eighths of an inch in length; the left, as far back as the division, nearly five-eighths; and each fasciculus a fraction more than two-eighths. The motion of the left cord was limited, and its free margin turned upward and somewhat outward, or into the ventricle proper. The case came under my observation a few days before death, but was so extremely feeble that an examination with the laryngoscope was not attempted, and although at that time unable to utter any audible sounds whatever, I am informed that previous to his illness his voice was good."

ANTIDOTE FOR ARSENITE OF SODA.—The ordinary antidote to asenious acid (hydrated sesquioxide of iron) is wholly inefficacious in poisoning by arsenite of soda or potassa. The antidote to the latter is formed by the mixture of a solution of sesquichloride of iron and the oxide of magnesium. This mixture also answers for acid arsenious, consequently should always be preferred in arsenic-poisoning. Give the officinal sol. ferri sesquichlor., and afterward the magnesia. Give a cathartic an hour after the antidote. Avoid all acid drinks.

THE MÜTTER FOUNDATION LECTURES IN PHILADELPHIA ON SURGICAL PATHOLOGY.—Old Dr. Mütter, of Philadelphia, at his death, which occurred some fifteen or twenty years ago, made over to the Philadelphia College of Physicians and Surgeons, the sum of $30,000 and his valuable collection of anatomical and pathological specimens, on condition that the college should erect a fire-proof building containing library accommodations, meeting and lecture rooms, and a museum. This was done in the year 1864, and since then the college has been enjoying the benefits of the endowment. The Doctor had provided in his will that $600 out of the yearly accruing interest on the bequest should be set aside every third year as payment for a series of not less than ten lectures on some subject in surgical pathology, to be delivered by a member of the profession chosen by the college. The choice this year fell upon Samuel W. Gross, M.D., who divided his lectures into two series. The first series, consisting of six lectures, was begun on December 3d, and finished on December 17th. The first two lectures of the series were upon the "Development, Etiology, and Classification of Tumors," and the remaining four on "Sarcomas of the Bones." The second series, of four lectures, will probably have for

its subject "Tumors of the Breast," and be ready for delivery towards the end of the coming May. The third and fourth lecture of the first course are to be published in *The American Journal of the Medical Sciences* for April, 1879, and the fifth and sixth in the same journal for July, 1879. Dr. Gross purposes to publish a treatise on tumors at an early date. The Mütter lecturer for 1881 is Dr. Edward O. Shakespeare, the well-known Philadelphia microscopist and pathologist.

It may interest the profession to know that the famous dissection of the Siamese Twins, which was performed several years since by Drs. William H. Pancoast and Harrison Allen, of Philadelphia, at the request of the College of Physicians and Surgeons, and which cost altogether some $1,100, including the expense of transporting the bodies of the twins to Philadelphia from their homes in the South, etc., etc., was entirely provided for out of the Mütter foundation.

A New and Successful Treatment of Shock.—Dr. Charles T. Hunter, Demonstrator of Surgery in the Medical School of the University of Pennsylvania, has lately introduced a new and successful treatment for the general shock following railroad injuries, etc. The patient is at once placed in a bath of 98° F.; the temperature of the bath is then rapidly raised to 110° F. As is well known the temperature of patients suffering from shock is as low as 96° in the armpit. By this method of treatment, Dr. Hunter has been able to raise the patient's temperature from 96° to 98½°, and to reduce his respirations in number from 36 to 20 in the minute. Before the bath, the skin is cold and clammy; on taking the patient out, it is warm and dry. The patient is kept in the bath from ten to fifteen minutes. This treatment has been followed in a number of recent cases in the surgical wards of the University Hospital.

Free Chlorine in Diphtheria.—Dr. B. L. Hartman, of Independence, Washington Co., Pa., after a rather extensive experience with diphtheria, and after finding that the usual remedies were powerless, says: "I concluded to try the chlorine in its pure state absorbed in a vegetable gum-water solution, as slippery elm or althea-root water. It is easily swallowed in this state, it is almost immediately absorbed, and its antiseptic and alterative action is at once perceivable. The effect was astonishing—the patient, a few hours before, rapidly sinking, revived in a short time. The fever and inflammation rapidly decreased. The specific discharge diminished, sinous gangrenous ulcerations took a more healthy appearance. The foul, stinking breath disappeared. The affected mucous membrane threw off its coating and discharged a more normal saliva, and in three to four days the most hopeless cases were out of danger.

This encouraged me to use it in all cases of diphtheria, and with proper sustaining diet and preparations of cinchona decoction, stimulants, etc., gargles of chlorate of potassa, alums, chlorate soda solution, salicylic acid solution, iodide of iron solution. After having pursued this treatment I lost but one patient, and he died of paralysis of the heart, two weeks after convalescence.

Formula: Aqua chlorate (Pharmacopœia Prussia), one oz.; Slippery elm water, or gum solution, 8 oz.

For a child from two to six years old, one dessert-spoonful every hour. For adults: Aqua chlorata, one oz.; Slippery-elm water, 6 oz. A tablespoonful every hour. Sustaining diet in small quantities every two to three hours, especially *milk*, and as soon as the mucous membrane is normal give stimulants in small quantities, with iron and cinchona preparations. In paralytic affections *nux vomica* or its preparations, as the case may require. I will remark before closing, that in nearly all cases I have noticed a peculiar tenderness of eyesight; and, in some acute cases, even total blindness for from a few hours to a few days, but disappearing always with a return to health."

Chapped Hands.—Dr. M. A. Wilson of this city gives the following prescription for chapped hands:

℞ Acid carbol.....gr. xv.
Yolk of egg.....one.
Glycerinæ..... ʒ iij.

M. A small portion to be gently smeared over the affected surface several times daily.

The wearing of a pair of cotton or old kid gloves will much assist the recovery. The hands to be kept much as possible out of water. This mixture does not "spoil" by keeping.

Dr. George A. Riecker, a graduate of Jefferson College, Philadelphia, and for some time surgeon to the Panama Railroad Company, died in Panama on the 4th instant of congestion of the liver. He was a surgeon in the Northern Army during the Rebellion. The funeral services were under the charge of the Masonic body.

Air of House of Representatives.—The physicians who attended the late Congressman Williams state that his illness "was entirely owing to the poisoned condition of the atmosphere of the House of Representatives, which he breathed constantly during the day, and to the malaria to which he was exposed at night, his private room being upon the south side of the avenue, directly over the water-sewers of the city." The public have suspected for many years that there was something wrong in the atmosphere of the House of Representatives.

Injection for Gonorrhœa.—Dr. M. A. Wilson, of this city, gives the following as his favorite prescription for gonorrhœa. He says it is most beneficial in the subacute stages, either recent or of long standing, but not of much service in *gleet*. All directions in regard to urethral hygiene, usually ordered in the treatment of this obstinate affection, are of course to be insisted upon:

℞. Zinci iodid..... grs. v.
Bismuthi subnit..... ʒ ij.
Mucil. gum acac..... ʒ iss.
Aquæ dest..... q. s. ad ʒ iii.

To be well shaken.

M. S.—To be injected after each urination.

This is the strength most generally serviceable, but may be varied according to the judgment of the prescriber.

Hypodermic Injections of Tincture of Ergot for Retention of Urine.—M. Luton, of Rheims, employs a mixture of one part of tincture of ergot in five parts of alcohol at 90°, by hypodermic injection, in the treatment of inorganic retention of urine. The dose he employs is from seven and a half to thirty drops, fifteen drops of the solution being equal to three grains of powdered ergot. He has used it in the paralysis of the bladder accompanying typhus, confluent variola, and acute hydrocephalus. He makes the injection in the fossa behind the great trochanter. Within half an hour, and sometimes within a few minutes, a complete and forcible evacuation of the bladder takes place. He has never observed an eschar of the skin or a gangrenous abscess after the injection.—*Le Lyon Médical.*

# Original Lectures.

## ACUTE ARTICULAR RHEUMATISM.

TWO LECTURES DELIVERED BEFORE THE MEDICAL CLASS OF THE UNIVERSITY OF PENNSYLVANIA,

By ALFRED STILLÉ, M.D., LL.D.,

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE.

(Reported for THE MEDICAL RECORD.)

### LECTURE II.

THE CONSTITUTIONAL SYMPTOMS OF ACUTE ARTICULAR RHEUMATISM— THE DIAGNOSIS BETWEEN THIS DISEASE, GOUT, DENGUE, AND ARTHRITIS—THE PROGNOSIS OF ACUTE ARTICULAR RHEUMATISM — THE COMPLICATIONS OF ACUTE ARTICULAR RHEUMATISM —THE LITERATURE OF THE TREATMENT OF THE DISEASE; PURGATIVES, OPIUM, QUINIA, BLISTERS, SALICYLIC ACID, AND ALKALIES—THE MOST RATIONAL TREATMENT THAT BY ALKALIES.

I CONCLUDED my last lecture with a consideration of the local symptoms of acute articular rheumatism. The general symptoms are in proportion to the local symptoms, and in no other disease are they more marked. The pulse is from ninety to one hundred in cases of average severity, and is not very tense. In the usual run of cases the temperature varies from 101° to 104° F.

It is a very curious fact that with this high temperature the skin is bathed in a profuse sweat. This, of course, is entirely different from what occurs in other diseases. The perspiration is sour in smell, acid in reaction, may be either cold or clammy, and gives to the hand a marked sensation of pungency. The amount of sweat is generally in proportion to the height of the fever, but it cannot be considered as any criterion of the severity of the attack. The sweat of acute articular rheumatism is more profuse than that occurring in any other febrile disease which lasts for the same length of time.

To the sweating is partly due the increasing anæmia of the patient. This condition of anæmia gives rise to a murmur, which is not heard over the mitral valve, but at the base of the heart and over the aortic valve, and differs from the murmur heard in lesions of that valve. It is essentially a blood murmur, and is to be carefully distinguished from a mitral obstructive murmur.

The urine is usually scanty and high-colored, and laden with solids—urates and uric acid. There is commonly complete abhorrence of food, and great thirst. The bowels are generally much constipated. The constipation and thirst are both due to the excessive sweat.

There is very frequently some kind of an eruption accompanying attacks of acute articular rheumatism. Sudamina are very common. Erythema, both simple and nodose, occasionally appear; while upon still rarer occasions urticaria is found breaking out. This eruption has no special value as a prognostic symptom, or otherwise.

The face is flushed, and the eyes are bright, while the expression is one of acute pain. In the active stages of the disease the pain may bring on delirium by reason of its agonizing character.

When the disease was treated by venesection, as was formerly the case, the blood so drawn was found to be very florid in appearance, and threw up, upon allowing it to stand, a thick and strong buffy coat. In some instances the proportion of fibrin in the blood was found to have risen from two and a half parts in one thousand parts of blood to five and even eight parts in the same amount. This great excess of fibrin in the blood is a very interesting pathological fact. In no other disease is the fibrin so greatly in excess.

There is but one plausible explanation of this phenomenon. It may be due to an arrested development of the white corpuscles, whose destruction would render intelligible the extreme pallor and debility of patients suffering from this disease; it being at present a seemingly well-established fact that the red corpuscles are formed directly from the white corpuscles. The loss of strength is due to the enormous waste of tissue brought about by the excessive discharge of solids in the urine.

After a variable period the pain and fever subside, the sweat moderates more and more, the thirst becomes less marked, the urine grows lighter in color, the effusion about the joints is absorbed, and the swelling subsides. Acute articular rheumatism is a disease which is not limited by days or weeks in its course. Be very careful, therefore, that you do not predict when your patient will get well.

If there is no relapse, the appetite will speedily return. If the recovery, however, is not so favorable, the effusion about the joints will remain; their fibrous tissue will become thickened, false anchyloses supervening, and movement of the affected parts becoming impossible. Particularly is this the case when the disease has been confined to a single joint, or when the same joint has been attacked several times by the disease.

The duration of acute articular rheumatism has been placed by some authorities at three months. The disease, as a general rule, will be found to be obstinate in proportion to the number of joints involved and to the frequency of the occurrence of attacks in the same joints.

#### THE DIAGNOSIS OF ACUTE ARTICULAR RHEUMATISM.

Acute articular rheumatism may be mistaken for the *arthritis*, produced by violence, or pyæmia. In both of these diseases the history of the causes and nature of the first attack ought to clear up all confusion with regard to the true nature of the malady. In arthritis there will almost always be found a history of some violence, or traumatic cause, or wound, or previous disease.

The fever and pain in the limbs render acute articular rheumatism something like *dengue*, or break-bone fever; but in this latter disease there is no swelling of the joints. In break-bone fever, too, there is always a papular eruption of the skin, which recalls measles, scarlatina, typhoid, and other fevers.

The disease from which it is most difficult to distinguish acute articular rheumatism is gout, though even here no one in the least familiar with the characteristic symptoms of the two diseases would be at all likely to confound them. Certainly not in acute gout, though possibly in an old, chronic case.

Rheumatism is chiefly produced by cold and wet; gout is never so produced. Rheumatism occurs among the poor and laboring classes; gout among the luxurious and indolent. Rheumatism attacks the larger joints, especially in its primary form, or else the small joints of the hand. Gout in its primary form invariably attacks the smaller joints, especially that of the great toe. In rheumatism there is no gastric disorder; in gout gastric symptoms are common. In rheumatism there is profuse acid perspira-

tion; in gout there is no perspiration at all, and the skin is hot and harsh. In rheumatism there is a secretion by the skin and elsewhere of *lactic* and *uric* acids; in gout there is only a secretion of *uric* acid by the kidneys, though I will not say that this uric acid is not also secreted by the skin, for it circulates freely in the blood. There is no tendency to saline and chalky deposits in the joints in rheumatism; in chronic gout there is such a tendency. In rheumatism the bursæ and joints are swollen; in gout the swelling is confined to œdema of the skin. In rheumatism the color of the affected joints is light red; in gout the redness is intense and dark. In rheumatism there is no permanent enlargement of the parts; in gout this is always so. In rheumatism the emissions are of very slight duration; in gout they are very marked, the patient imagining himself quite well in the intervals.

THE PROGNOSIS OF ACUTE ARTICULAR RHEUMATISM.

Acute articular rheumatism is not a dangerous disease in itself, though one attack increases the liability to the disease. The mortality in uncomplicated cases of acute articular rheumatism is only about four per cent. Where the disease is fatal in itself, it is generally due either to the excessive pain acting on a weak constitution, or to the so-called *hyperpyrexia*, the cases in which the temperature mounts up rapidly to 108° or 110° F., or to the exhaustion of the brain and the heart. The danger of cardiac inflammation is greater in the young than in the old. Repeated attacks produce a permanent rigidity of the joints, and render the valvular lesion worse each time. There are very few second attacks which do not settle upon the same joints which were affected in the first attack, and make an additional deposit upon them.

THE COMPLICATIONS OF ACUTE ARTICULAR RHEUMATISM.

The complications of the disease would form a very interesting study, but I have not time to enter upon a full consideration of them.

Among them may be mentioned chorea, or St. Vitus's dance, which is more or less marked in severity and an especially common complication in children. This disease, as an accompaniment of rheumatic affections, is more common where the heart is affected than where it is not.

Acute articular rheumatism is a peculiar inflammation of the capsules and ligaments investing the joints. This inflammation may be transferred to any similar tissue elsewhere. All the serous and fibrous membranes of the body are exceedingly liable to be inflamed, hence the frequency of peritonitis, pericarditis, endocarditis, pleurisy, meningitis, or bronchitis, as complications of rheumatism. In these cases, where internal organs are attacked, the local rheumatic symptoms are not in the least diminished—the patient has two diseases to suffer instead of one. Of all the complications meningitis is the least frequent, while pleurisy and bronchitis are the most common. Rheumatic pleurisy with bronchitis is very intractable. Such a pleurisy is more likely to be double than any other form of pleurisy. Rheumatic bronchitis also is apt to be very severe, for, unlike common bronchitis, the whole extent of the bronchial mucous membrane is affected, and the oppression is greater than in any other form except plastic bronchitis. The cough, too, is racking and unproductive.

Attention was first called to rheumatic heart-affections by Pitcairn, of London, and the close connection between the two diseases demonstrated. Again, in 1820, Dr. James Johnson insisted upon the same thing. The celebrated Bouillaud, of Paris, was the first, however, to prove beyond a doubt the nature and reality of the inflammation, although he exaggerated the frequency of the occurrence of endocarditis. The explanation of this exaggeration lies in the fact that at that day all murmurs heard within the heart were supposed to be produced by inflammation of the organ, whereas they often depend upon changes in the blood. Bouillaud called attention to the deposits made in the heart in the *post-mortem* inspection of persons dying of the disease, especially upon the leaflets of the mitral valve. Pericarditis or endocarditis he supposed to occur about once in every five cases of acute articular rheumatism. The signs of endocarditis are sometimes obscure and doubtful; it cannot be proven to exist on the strength of an endocardial murmur, which may be either functional or organic; or, again, the murmur may be caused by the attachment to one or more of the valves of more or less of the fibrin which is circulating in the blood. It is now settled that if there is no increase of the general symptoms at the time there is no proof of the existence of endocarditis.

The cerebral complications of acute articular rheumatism are thus described by Fuller: A patient with acute articular rheumatism passes a week or two with no untoward symptoms, until, after several nights of flightiness, maniacal delirium occurs, in the course of which he throws his limbs about as if they were insensible to pain. If the patient does not improve, he falls into a state of coma, and dies from exhaustion. In such cases no evidence of inflammation in the brain is found after death.

Sometimes, owing to the excess of fibrin, coagula form in the heart, and become the cause of alarming and distressing symptoms. Emboli being so formed, may be carried perhaps into the brain and other organs.

THE TREATMENT OF THIS AFFECTION.

At the outset of this part of my discourse, I desire to lay great stress upon the statement that *the treatment of simple acute articular rheumatism may be abandoned to palliatives and nature.* Apart from complications, such cases nearly always get well under rest and good nursing. Try and disabuse yourselves of the idea that their cure is dependent upon medicines alone; to help nature is often the best we can do. No treatment was ever invented which stopped a case of acute articular rheumatism. It cannot be accomplished by bleeding, or sweating, or purging, by nitre, by tartar emetic, by guaiacum, by alkalies, by salines, by salicylic acid, or by anything else. The physician can palliate pain and perhaps shorten the attack; can perhaps prevent or control complications, and stiffness in the joints, but he cannot arrest the disease. Where rest, proper diet, and warmth are enjoyed, most cases will get well just as soon without as with the use of other remedies. Dr. Austin Flint, of New York, in support of this statement, subjected some patients, a number of years ago, to the expectant treatment, and found that they made just as rapid and just as complete recoveries as those cases under active medication.

Purgatives have been used in all ages in the treatment of this disease, because it was considered to be a fever. We are all too apt to put our necks into the yoke of a theory. In old times they thought that the system ought to be reduced. Before the time of purgatives depletion was employed. This mode of treatment I will not even discuss. There is no evidence that I know of in favor of purgatives. There are

very good reasons, indeed, why they should not be used: (1) because they cannot possibly cure; (2) because they oblige the patient to make painful movements; and (3) because they expose him to the danger of cold.

A celebrated London physician had all his patients packed in blankets, and did not allow them to move a finger. This was going to the other extreme.

There are certain cases in which purgatives are alleged to be of use, viz., those in which the bowels are constipated, and there is a bitter taste in the mouth. I have never seen such cases except in habitual drunkards, and in their case a purgative does more harm than allowing the effete matter to remain in the system.

Opium was once vaunted as a specific, and it was claimed that it diminished the complications of the disease. Dr. Corrigan, of Dublin, said that large doses of opium were well borne—say from four to twelve grains in the course of the twenty-four hours, or sometimes he advised giving as much as one grain every hour. Opium so employed does not produce narcotism, and does not constipate the bowels. More recent experience has shown that opium, of all remedies, is the most likely to cause complications in the heart.

Some have recommended colchicum, arguing that because it does good in gout, it must therefore do good in rheumatism. But colchicum is not a remedy for rheumatism.

Many years ago it was very much the custom to administer large doses of powdered Peruvian bark. The rationale of these large doses was founded upon their sedative effect. Haygarth, Morton, Heberden, and Fothergill were the first to employ this method. Later still, a number of noted French physicians, among them Briquet, Andral, Moneret, and Legroux, renewed the use of this medicine in the form of quinia, but gave it in smaller doses, seeking only its tonic effect, from five to fifteen grains being administered in the course of twenty-four hours, and then it was continued in smaller doses.

Still more recently, quinia taking the place of Peruvian bark, the old plan of administering large doses has been resumed. From thirty to one hundred grains have been administered in the course of twenty-four hours. Never was there a more profligate waste of a precious medicine. Even the physicians who so used it were obliged to acknowledge that it only did good in subacute and mild cases.

I believe that it has also been fashionable in the so-called cases of *hyperpyrexia* to immerse the patient in a bath varying in temperature from sixty to ninety-eight degrees Fahr. Although patients thus treated sometimes recovered, they also sometimes perished from congestion of the lungs and brain.

Among cardiac and nervous sedatives, digitalis, veratrum album and viride, veratria and aconite, have at one time or another been employed indiscriminately. Such treatment, of course, has only proven itself to be a monument of rashness to those who employed it. Such sedatives may reduce the pulse, but do not shorten the disease. Indeed, if it is possible to prove the absurdity of anything more clearly by mere enumeration of these medicines as cures for rheumatism, I do not know of it. Do digitalis and aconite act in the same manner? This is just one expression of the folly which has surrounded the use of digitalis at its first discovery. Every affection of the heart was treated by digitalis.

Within the last few years new remedies have been proclaimed in salicylic acid and its sodium salt. I confess that I possess no personal knowledge of their use in this disease, for I was at first dissuaded from employing them by a prejudice against the grounds on which they were recommended, and more recently by the contradictory judgments respecting them, and the unquestionable mischief they have sometimes caused. According to their eulogists, the arrest of the disease is secured by them within four or five days, whether the attack be febrile or not; its mortality is diminished; relapses do not occur if the medicine is used until full convalescence; it is without influence on heart complications already existing, but it tends to prevent them as well as other serious inflammations. One of these gentlemen assures us that to say it far excels any other method of treatment would be to give it but scanty praise. But, upon the other hand, it is accused of producing disorders, and even grave accidents, in almost all the functions of the economy. In some cases it has caused ringing in the ears, or deafness, or a rapid pulse, or an excessively high temperature, panting respiration, profuse perspiration, albuminuria, delirium, and imminent collapse. In one published case, this antipyretic did not lower, but, on the contrary, seemed actually to raise the temperature so high that immediately after death it stood at 111° F. Many, very many, analogous cases have been published. I repeat, therefore, that I am personally unacquainted with the effects of this medicine in acute articular rheumatism, and that I have not, thus far, been tempted to employ it.

### BLISTERS AND ALKALIES THE MOST RELIABLE REMEDIES.

It may be difficult to see the connection between these two classes of remedies in their power to influence the course of acute articular rheumatism, and yet it is certain that they do so influence it, and in the same way, *i. e.*, by altering the condition of the blood from acid to alkaline. If you ask me to explain to you how blisters act in this way, I am obliged to confess my ignorance. To produce this effect, they must be applied over all the affected joints. Experience, if not science, has decided conclusively in their favor. They do produce a cessation of the local symptoms, render the urine alkaline, and diminish the fibrin in the blood.

This brings us to a consideration of the use of alkalies. Alkalies neutralize the acids, act as diuretics, and eliminate the *materies morbi*. Alone, and in small doses, they are unable to cure; but, when given in very large doses, their effects are marvellous; the pulse falls, the urine is increased in quantity and becomes alkaline, and the inflammation subsides. The symptoms of the disease are moderated, the duration of the attack is shortened, and the cardiac complications are prevented.

The dose of the alkalies must be increased until the acid secretions are neutralized. A very good combination of these remedies is the following.

| | | |
|---|---|---|
| ℞. | Sodæ bicarb. | ʒ iss. |
| | Potas. acetatis | ʒ ss. |
| | Acid. cit. | f. ʒ ss. |
| | Aquæ | f. ℥ ij. |

S.—This dose should be repeated every three or four hours until the urine becomes alkaline. On the subsidence of the active symptoms, two grains of quinia may be added, with advantage, to each dose. The alkalies must be gradually discontinued, but the quinia continued.

The diet should consist of beef-tea or broth, with bread and milk; no solid food should be allowed.

Woollen cloths moistened with alkaline solutions may with advantage be applied to the affected joints. To these laudanum may be added for its anodyne effect.

The patient must be sedulously protected from vicissitudes of temperature, and lie in bed between blankets.

The alkaline treatment relieves the pain, abates the fever, and saves the heart by lessening the amount of fibrin in the blood.

A long time ago Dr. Owen Rees, of London, introduced the use of lemon-juice. This remedy was thought to convert uric acid into urea, and so to help elimination. Though the treatment is practically right, the theory of it is wrong. Lemon-juice does good in mild cases, but cannot be relied upon in severe attacks.

During the febrile stage of acute articular rheumatism the diet should consist mainly of farinaceous and mucilaginous preparations, with lemonade and carbonic acid water as a drink. The cloths applied to the joints should be changed when they become saturated with sweat, and in changing them the patient should be protected from the air.

The sweating may be controlled by small doses of atropia, from one-sixtieth to one-thirtieth of a grain. To prevent subsequent stiffness, the joints should be bathed with warm oil and chloroform, and wrapped in flannel cloths. In the proper season this condition is very well treated by sea-bathing. There is no specific plan of treatment in acute articular rheumatism. The treatment must vary according to the intensity of the inflammation and the peculiarities of the patient.

# Original Communications.

## THE PROPHYLACTIC TREATMENT OF INDIVIDUALS AS A MEANS OF PREVENTING EPIDEMICS OF YELLOW FEVER OR OTHER INFECTIVE DISEASES.

PAPER PRESENTED TO THE PUBLIC HEALTH ASSOCIATION, RICHMOND, NOV., 1878.

By EZRA M. HUNT, M.D.

As to all infective diseases, four questions are prominent: I. Origin; II. Modes of propagation; III. Methods of prevention; IV. Treatment.

In this paper we shall not discuss the origin (I.). We shall take it for granted that the *mode of propagation* (II.) is by infective particles, mostly received through the air-passages, which, passing into the human system, produce that toxic and abnormal condition which constitutes the disease.

The treatment (IV.) we leave to be discussed by those who, after heroic contention with the recent epidemic, still live to contribute their experience.

Our present intent is only to inquire as to methods of prevention. To this inquiry there are many prompt replies.

Those, for instance, who regard yellow fever as an infection, imported every time it first appears, fasten attention on the marine. To such—so far as the United States is practically concerned—that is the origin, and such propose its abolition coastwise. That may be so; and all along the line we would put the forces of sanitary art on duty, as if that were *the direction* of danger.

But so often has the enemy entered while watched, so hard is it to watch so as to prevent landing atoms or molecules so small that the microscope and the Tyndall light reflectors have not revealed them, and so variable are the convictions of skilled students of epidemiology, that by common consent other methods of prevention are not to be dispensed with.

The second answer is: prevent by cleanliness of surroundings—purity everywhere. Not one whit would we demur from that enforcement. But we are to remember that massed population, without *any* animal organic matter around, and vast areas of territory without *any* accumulated vegetable decay, are difficult of realization. To remove or disinfect all such decay is a herculean task. If infective particles only await the coincidence of heat, moisture and accumulated decompositions, they stand large chances of finding these somewhere. The effort is to be made, because partial success means limitation; but we may not entirely trust to this for the abolition of infective diseases.

Is it not also well, just here, to note that with all that is said about FILTH, yet the infective particles, having been originated elsewhere and arrived in cargo, it is yet to be proven that outside filth is the soil for such particles. Is not the soil in the individual? Does not the infection go straight for the human being as its place to feed, and grow, and display its sad vigor of force? It is not *dependent* upon collateral outside aid now. The vicious entity has arrived as a plenipotentiary. For display of power it only needs a man, a woman, or a child, even if occasionally accepting the aid and abettal of outside servants. We believe that filth is evil, and only evil, and that continually, and that it often assists to intensify infective diseases, but more because it embarrasses individuals in their resistance than that it invigorates infective particles for the higher organism on which they feed, and to which they, by their own ill instinct, resort.

Sir Thomas Watson, Bart., M.D. (1877), goes so far as not only to call the *body* the soil in which the infection finds its sought-for nidus and food for growth, but accounts for the *single* attack of many infective diseases, on the view that the first seizure exhausts some one or more of the indispensable ingredients only to be found in the man.

The next reply, and the most usual resort, is *treatment*. It hopes to limit by staying the progress and abating the severity. This, though not preventive to the individual concerned, does probably limit the production of infective particles, and result in fewer seizures. But new discouragements await us. Some of these infections, like plague and yellow fever, so rapidly change vital fluids, or congest or disorganize, that the system is incapacitated for the appropriation of remedies so as to obtain their physiological and medicinal effects. In yellow fever, for instance, the earliest and radical changes are in our great dependency, the blood. It is a blood-poison (Schmidt). With the introduction of a foreign irritative there is rapid decomposition, *i. e.*, separation of its constituent parts, impairment of the blood-paths to the remotest arterioles, and paralyzation of the vaso-motor nerves (Huxley, p. 62) which control them. The blood is very early acid, the red corpuscles are diminished in size, shrunken and crenated, and their coloring matter becomes free in the blood, thus changing from hemoglobin to hematin. The fibrin is diminished so as not to coagulate; the walls of the vessels lose tone, and show germination of the nuclei of the muscular coat of the arterioles, and early fatty degeneration (compare Klein, p. 47). Organs are

affected not so much specially (idiopathically or primarily) as by virtue of a tendency to congestion consequent upon the primary toxic shock on the blood and its ducts.

I happened to be reading side by side the report on the minute anatomy of twenty-three cases of malignant scarlatina by Klein, and similar examinations of yellow fever by Schmidt, etc. (Privy Council, New Series, No. 8, 1876, p. 24; *N. C. Journal*, Sept., 1872 and 1878), and could not but be impressed with points of comparison.

Here is one: It would seem as if, "under the influence of some stimulus (perhaps some blood-irritant) which the disease supplies, the arterial muscular tissue has been exceptionally exercised. Query, whether this exceptional exercise of contractility affecting the calibre of the arterioles may, during life, shut the glomeruli out of the circulation, and may thus, so far as it operates, suppress the secretion of urine." See Klein, p. 58.

Prof. Joseph Jones, *N. C. Med. and Surg. Journal*, Sept., 1874, notices "the rapid putrefaction of the blood of yellow fever after its abstraction from the living body, as also the rapid dissolution of the colored blood-corpuscles."

The hopelessness of treatment in severe cases is inseparable from the involved lesions of the disease. It is much the same as with the concealed imbibition of an acid poison, for it thus impairs structure as much as does a fretful corrosive in contact with living parts. If we had antidotes we would be too late.

In view of all these facts, as to the incompleteness of our prevention, by coast guard, by cleanliness and disinfection, and by after-medication, we are almost driven to ask whether we may not turn from surroundings (circumstances) and come to deal with individuals before the manifestation of disease.

Is it not worth yearning inquiry if we cannot put individuals in such a condition of unreceptivity as to exempt them from seizure, and so not only save them, but thus limit the disease below epidemic proportions, and in the end, by all the methods combined, accomplish well nigh its subjugation?

Such limitations do take place in nature. Unsusceptibility to attack under actual exposure is not a mere fortuitous circumstance; we recognize it as acquired by the individual when we call him acclimated.

That protection must be of an internal character. Such limitations are often established when a disease once had secures immunity from any subsequent attack.

It is not unthinkable that somehow we too may put the individual in at least such temporary condition as that the infective particle will not alight upon him, will find a surface on which it cannot or will not operate. That we do not do this after a disease has made alteration of structure and accomplished suspension of function, is not surprising. Nor is it at all strange if the same remedies, which are useless or feebly operative or positively injurious in the disease, might yet avail before its outbreak.

What then can we do to the individual so that when the particulate or molecular infection comes along it shall find a surface unfriendly to its lodgment, or the blood and secretions or the membranes so preoccupied, prepossessed, pre-empted, that the disease cannot take hold? There is an answer which has to do with mechanical prevention. If cotton-wool will detain saprophytes, we can conceive how, were it practicable, the air-passages might have infective particles strained out and left without.

But more practically we may look to the entrance-chamber for all air and food. The mouth, the glands, the lymphoid follicles, the character of the membrane, its whole series of absorptive apparatus, as revealed by histology, and the manifestations which in some infective diseases do take place just there, and the evidences in others of absorption from thence, cannot but excite watchful inquiry. That is a suggestive remark of Dr. Wm. Farr, in the Thirty-eighth Annual Report of the Registrar-General of England, when referring, as he calls them, to "the seeds of zymotic disease," he says: "Inspiration bringing them into contact with the mucous membrane of the nose, throat, and air-tubes, easily infects the moist surfaces with their venom" (p. 232). There are some infective particles which are local in effect, as well as conveyed by absorption, before they are wholly constitutional. With infectives which enter from without, it applies to the individual as well as to the State to guard the port of entry.

Since it is possible that infective particles might be detained mechanically or affected chemically, or if living matter, like other animals or vegetables, might have their instincts or choices of locality, or that corrugated surfaces, or certain odors or presences, might prevent activity or absorption, the question is not irrelevant; whether we may not, by dealing with the most accessible mucous surfaces, which all these particles have to pass over or lodge upon, somehow embarrass entrance or suspend their proclivities. But in a disease like yellow fever more important is the question whether the setting up of those absorptive, proliferative changes which the poison would initiate, cannot be prevented by introducing beforehand and securing the sustained presence in the blood and system of substances inimical to the infective particles in their attempted occupancy and disorganization. Now note a few facts from competent observers, not offered by them in support of a hypothesis, but occurring in the course of other investigations.

Prof. Polli, of Milan, in his paper before the British Medical Association, 1877, entitled "Observations on the Treatment of Zymotic Diseases by the Administration of the Sulphites," showed by his experiments that the bodies of animals that had been fed on the sulphites resisted putrefaction longer than similar animals not so fed, and so rendered it probable that certain resistive conditions can be maintained in the living body for a time (although he did not hint at the application of the principle to the prevention of disease). Still more suggestive is the fact that urine passed by the animals while living "did not undergo ammoniacal fermentation for eight days during the hot Italian summer."

Is it not tenable to ask whether we may not, by infusion of the blood, interfere with septic infections before they have crippled our power, and thus prevent their recognizance or make the malign benign?

In a recent discussion which took place at the Paris International Congress of Hygiene (1878), M. Bugy alluded to his own careful watching through several cholera epidemics as to the singular exemption of workers in copper. He had himself satisfactorily experimented with it. "The point was to become impregnated with the copper—to have a certain quantity in the system—so as to obtain immunity." He explained the escape of Aubagne, between Toulon and Marseilles, from three cholera epidemics in this way. M. Mormisse declared his confidence in this prophylaxis. (See *London San. Record*, Aug. 16, 1878, p. 106.)

The influence of continuous doses of arsenic in suspending the effects of vaccination, and its value as a prophylactic in an epidemic of rinderpest, is claimed

as a result of experiments and observations by E. J. Syson, English Medical Officer of Health.

Some reputable observers in our country, as alluded to by Prof. J. G. Cabell, in his late address before the American Medical Association, have been hopeful in their success with other prophylactics in diphtheria and scarlet fever.

So good an authority as Prof. Binz claims that the antipyretic action of certain articles is a result of their antiseptic power. (See *Lond. Prac.*, XVI., p. 443, quoted *Phil. Med. Times*, Sept. 28, 1878.)

But we scarcely need to look thus far for evidence.

If we follow the clinical history of cinchona, we find that, from being ranked as a specific or antiperiodic, it has come to vindicate and define itself as an article introduced into the blood, which interferes with the domination of at least one specified infection. Chill and fever is admitted to depend upon infective particles received from without. Susceptible persons, who have never suffered an attack, are prevented therefrom by the introduction of the alkaloid as a prophylactic. This distinctly means that one outside infection known to be able to initiate and carry on prolific diseased action is deprived of that ability and suspended in its exercise of power by dealing with the individual easier than by dealing with his surroundings. It is the unimpeachable witness that in one notable class of cases it is possible to place beforehand in the blood, and, by repeated doses, keep present there, that which does suspend the animation of at least one infection, and so prevent the disease.

This is so well admitted that, as a reminder, we only need to refer to such a summing up and such an example as that recorded by Prof. H. C. Wood, Jr. (See Materia Medica). "The value," says he, "of the daily use of quinine to persons exposed to a malarial atmosphere has now been thoroughly tested in all portions of the world. The testimony is unanimous in its favor." A single citation will serve to illustrate the fact. Dr. J. B. Hamilton (*Indian Medical Gazette*, Nov. 1, 1873) reports the case of a battery of 135 men quartered at Jubbulpore, East Indies, in the same barracks with an infantry regiment. Each of the artillerists received three grains of quinine every other day; to the infantrymen none was given. The result was, that whilst 300 out of 500 men of the regiment were sick at one time with malarial disease, at no period were more than four per cent. of the battery affected.

Says Prof. R. Bartholow: "Quinia is used to prevent malarial *infection*. Numerous instances have been reported in which those using quinia as a preventive of malarial poisoning have experienced an exemption from malarial diseases when exposed to the most deadly miasma." *This great outstanding fact that there is one article which, given in advance, can vacate one infection, is never to be lost sight of in thinking of an epidemic.*

Because it so happens that quinine also aids to overcome the developed disease, we are not to obscure it as a prophylactic to at least one infective.

It is always possible, and in some degree probable, that the same article which acts so as to supersede an infective particle, and so prevent its self-assertion, will also act as a restraint, or as a curative, in maladies where the first paroxysm is not destructive, or the toxic tends to expend itself without malignancy.

But, because any article does not prove a remedy in an attack, we cannot infer its inertness as a preventive.

In some infections the era of manifestation is that of indisputable supremacy. The force is so explosive, the tainting of fluids and the disorganization of vital parts so early, or the exacerbation so distant, that we cannot hope to suspend an action hastening to the bitter end. The prophylactic in the severer cases may even prove an irritant, just as restoring food will irritate a perverted stomach.

That quinine has any superseding effect, after a malarial infection has had constitutional manifestation, is far more likely, owing to its less pernicious endowment and its periodicity of activity, than to any specific relation between this one infection and the alkaloid itself. While each kind of infection has its characteristics, yet they are allied in their methods of dealing and in their effort to set up septic processes.

We are greatly interested in experiments by Mayer, Hallier, Herbst, Polli, Binz, etc., which show the wonderful protective power of quinine before any infective action has been declared. In the proportion of 1 part to 300, it will preserve milk, urine, albumen, etc. It acts upon infusoria as well as upon the ordinary mould or fungi.

It may as appropriately be called anti-infective as antiseptic, quelling that movement which is the process by which the infective molecules of the inbreathed poisons do initiate their work and accomplish their virulence. Through the blood, in an unembarrassed state, "the cinchona alkaloids diffuse with great rapidity." Increased fluorescence is discernible in the crystalline lens in a half-hour after its administration, and as soon as that it is also present in the urine. It is possible even by small doses to maintain for a length of time its presence in the blood, as it is easily held in solution, or minute division in it, B.). "Recent researches have quite accurately demonstrated the nature of the action of quinia on certain constituents of the blood. It is a protoplasmic poison" (Bartholow, M. M., p. 127). It tells upon cells and all amœboid movements (compare Frey, p. 12). Amœboid movements are checked by it when only 1 to 4,000 parts is present. It impedes those blood-changes which are a part of the noticed effect of most infectives in their initial work (see Wood, pp. 60 and 61). It acts forcibly on all animal germinal matter, as well as upon the fungi which are the immediate cause of so many destructive changes.

With such facts as to a substance which it is possible to maintain for a considerable time in presence in the blood and secretions, and with the fact certified beyond dispute, that at least one class of infective particles, having entered into our being, *are* circumvented, suspended, and, so, any manifestation of disease prevented by this antecedent treatment, *have we not a prophylaxis of the individual which should make us intensely hopeful as to all those infective diseases received from without in a similar way?*

While there are destructive infective particles put in from without, there are also preservative and conservative particles to be put in which establish and maintain a condition of resistance.

What acclimatization does; what once having a disease often does; what vaccination does; and, most of all, in its present bearing, what quinia given in advance does, to prevent demonstration by the infective particles of malaria, make it not chimerical to be intensely hopeful that some other infective particles may be prohibited from that exercise of their power which is the fatal disease, by timely infusion into the blood of antagonistic elements which, in order to be timely, must be antecedent, prophylactic.

Two other articles may be alluded to as illustrative of the seeming control which can be exercised by a

continuous presence in the blood of antagonists to infective developments.

Chlorate of potassium, there is reason to believe, interferes with the action of infective particles. It is easy of absorption and maintenance in the blood "if the stomach be in a condition to absorb anything"—Barker, p. 410. Isambert found it in the saliva in five minutes after ingestion; in the urine in ten minutes, in which it continues from fifteen to forty-eight hours; in the nasal mucus, the tears, and the bile. Its power of permeation and harmless sustentation, and its aid in disposing of the products of change, so as to render them innocuous, is most manifest. It dissolves albumenoids, of which many conceive infective particles to consist, and insures the gradual oxidation of the organic constituents of fluids (B., M. Med., p. 638). Its introduction as a medicine (see West), its power over aphthæ and ulcerative stomatitis, the identification of cryptogamous growth (Gruby, Berg, Condie; Watson, p. 485), and Niemeyer, Chap. 1-8, Vol. I., p. 414-430) and fungi in some of the diseases over which it has chief control, are in accord with its hoped-for power over morbid processes dependent upon inhaled infections.

Tincture of chloride of iron—tinct. ferri chloridi—is another of the articles to be hopefully watched as likely to fortify the system against susceptibility to some infective particles and to prohibit the rapid disintegration which they attempt.

As preventive of the sedation or coaptation of infective particles to mucous surfaces, its corrugating and antiseptic effect is such locally as to interfere with implantation and absorption. When in the blood, it not only increases the contractility of the vessels mechanically, but also aids their vital contractility.

Our power to modify the condition of the blood by the use of this agent has received some interesting certification more recently.

The white and red corpuscles are seen to play not only the important rôle in health, but to be subject to great disturbance and diminution in rapid infective diseases. By means of Mal-as-sez, "Compte-Globules," or Globule Reckoner, or with the Hæmacytometer (see *Phil. Med. Times*, Sept. 28, 1878, p. 623), we can see what takes place under the administration of iron. The experiments of Rabuteau, in Paris, and of his confrères (see cit.), and of Prof. Gowers, of London, show what control we may thus exercise over blood-conditions. Even white blood-corpuscles can be made to take up small foreign particles (see Frey's Histology, p. 24). Our own prophylactic use for diphtheria and scarlet fever has been highly satisfactory. It seems to act directly "on the blood as an ozonizing agent." The chloride of iron, well laden with oxygen, chlorine, and iron, and having, in addition, muriatic acid, alcohol, and muriatic ether (W., p. 81), is resistant of infective degradations, and only fails in some of them as a remedy, because already its power is surpassed and outridden by that of the infection and by the inability of the diseased vessels to deliver it.

We allude to these as illustrations of hopeful prophylactics, to which not unlikely may be added salicylic acid, arsenic, alcohol, sulphurous acid, and some sulphites and chlorides found to have some restraining prophylactic power in general or in special adaptation to some classes of infectants, even though they entirely fail as remedies.

Our desire in this presentation is to draw special attention to the dealing with the exposed but unattacked individual amid rapid and destructive epidemics, instead of only with everything outside of him. The scourge is so portentous and the ravages so dire, that, while not neglecting any outside methods, we would be inquisitive as to what can be done upon the individual who cannot betake himself to flight.

May we not closely study his personal cleansing by detergent and antiseptic methods at his points of contact with the infected atmosphere about him? May we not ask how we may guard the common avenue of approach and protect its membrane, and all the more since in yellow fever the inbreathed air is esteemed the common carrier of the infection?

Shall we not most of all emphasize the facts which justify us in testing and asking others to test our ability to suspend the infective process by having present in the blood organs or tissues, such catalytic substance as shall either destroy the infective particle, or, as this is not essential, so stupefy, embarrass or suspend it, that it shall not be able to set up critically that morbid series of actions which constitute the violence of a disease.

The article of Dr. P. Selis, of Havana, as quoted in the *N. O. Medical and Surgical Journal*, Sept. 7, 1878, in reference to the Preventive Treatment of Yellow Fever in Havana, deserves to attract attention.

The ground of such hope is quite different from the hypothesis of specifics for each disease, but is based upon what does actually take place in prevention of malarial attacks, what is asserted by respectable authorities to have occurred as to diphtheria, scarlet fever, etc., and what may attach to many articles by virtue of their ability to infuse into the blood a resistive principle.

This is far more probable since we have come to know that we can for days maintain in the blood certain substances, which are known to interfere with the progress of changes similar to those which infective particles set up, and can perceive uniformity of effect if only the element is introduced before the toxic has embarrassed or nullified its capacity by changes already wrought.

After once having secured the presence of some such substances as we have named, as manifested in the saliva, urine, etc., it takes exactness of method and real discipline of administration, but very small doses, to maintain this action up to the point of securing resistance or benignancy.

The embarrassment to any one proposing such a method is, that so many claim to have tried these as *remedies* without avail, and so infer against their prophylactic value, or else have made trials in this direction which lack precision, continuance, and sufficiency of numbers.

We shall never lose the expression of Prof. Lister, as, one day, in his own Edinburgh University Hospital, he said: "I am always willing to be informed by the testimony of capable observers and accurate manipulators; but so many annoy me by having *somehow* used an antiseptic, and then telling me they have tried my method without success. When I come to find out what they have tried, I generally find that they have tried piecemeals, and these piecemeal failures should only stand as the tokens of inadequate trial and imperfect details."

It is just so with very many prophylactic trials in the past. There have been a few exact observers and a few trials which, as far as they go, have been expert; but there has been too great paucity of cases, as well as too few who have observed and tried *this* preventive method on a plan.

What we want is, that a large number of persons

in an infected locality shall be put under exact individual prophylaxis, under continuous medical supervision, with prescribed conditions of test. It will not do to rest on doubts and denials, accompanied by no particulars which will enable others to arrive at conclusions, nor, on the other hand, to accept without items such a statement as that of the New Orleans correspondent of the *Times*, who, under date of Sept. 20th, says: "There has been sufficient evidence adduced to show that quinine is prophylactic. One orphan asylum, containing fifty-six children, has not had a case so far. Since the outbreak of the epidemic each child has been constantly under the influence of the drug. Within your correspondent's knowledge there are fourteen unacclimated persons who have thus far escaped, although constantly exposed, who have regularly taken six grains of quinine a day in conjunction with arsenic." We since find the evidence still stronger.

All we claim is, that, with the facts as we have stated them before us, the time has come when we should be ready for a precise method of prophylaxis in the first epidemic, such as shall confirm or disprove views that are entertained.

Early in the recent epidemic some such views were expressed by us and forwarded with courteous attention; but the variety of other suggestions and the emergencies of multiplying cases and deficient aid, prevented satisfactory trial.

If only thus we can prevent—*i. e.*, go before the infected particle has had individual manifestation, as does quinine before the infection of malaria—we shall assist the other methods practised in a most radical and important way, and add to future hopefulness in the limitation of all infective diseases.

## TWO CASES OF VARICOSE VEINS OF THE LOWER EXTREMITY, TREATED FOR RADICAL CURE AT THE PRESBYTERIAN HOSPITAL,

By ALFRED C. POST, M.D.,

VISITING SURGEON.

Case I.—James Johnston, laborer, æt. 45; admitted April 9, 1877.

Patient has had varicose veins on his right leg for the last twenty-five years. An ulcer appeared five years ago, on the external and posterior surface of the leg, and has remained open since that time. At different times other ulcers have occurred and have healed.

Present condition: Patient is a man of large stature, but of pallid complexion. Cicatrices of former ulcers are seen on both legs. There is an unhealthy ulcer, of the size of a silver half-dollar, on the posterior and external aspect of the right leg, about five inches above the ankle. On the inner side of the calf of this leg may be seen knots of enlarged veins, covering a space six inches long by three to four inches wide. The veins are movable under the skin.

The ulcer was directed to be poulticed two or three days, and then dressed with salicylic ointment.

April 15th.—The area of the enlarged veins was marked with nitrate of silver, that it may be readily defined after the application of an Esmarch's bandage.

April 16th.—The patient was etherized. Esmarch's bandage was applied around the limb, from the toes to a space three or four inches above the knee. An incision was then made longitudinally over the mass of enlarged veins, and by careful dissection the veins were fully exposed. They were tied above and below, and the included portions were excised. There was but a slight oozing of blood after the removal of the compression from the thigh. The wound was closed with numerous fine silk sutures. The operation was performed under carbolic spray, and Lister's dressings were applied.

April 17th.—Patient complaining of some pain in the limb. Temperature in the morning, 99°; in the evening, 100°. Dressings were not disturbed.

April 18th.—Temperature in the morning, 104°. Considerable pain in the leg. The internal saphena vein along the thigh, and the surrounding tissues, are inflamed. Removed the dressings. The wound looks well, but the skin of the leg is very red. There is a serous discharge from the upper end of the wound. The alternate sutures were removed. The wound was directed to be dressed with salicylic ointment spread on lint, and over this a roller bandage. For the phlebitis on the thigh, a blister ten by two inches was directed to be applied over the course of the inflamed vein. Ten grains of sulphate of quinine were directed to be given immediately. Temperature in the evening, 104°.

April 19th.—Temperature in the morning, 103¼°. Phlebitis subsiding, but the inflammation about the wound is increasing. The remaining sutures having been removed, the wound gapes throughout its whole extent. Temperature in the evening, 104¼°.

April 20th.—The flaps appear livid and inclined to slough. The discharge is profuse, but not fetid.

April 24th.—The inflammation of the saphena vein has almost entirely subsided. The inflammation about the wound on the leg is also disappearing. The temperature has steadily fallen since the last date. The outer flap has sloughed; there is also some sloughing of the fascia forming the floor of the wound. There are healthy granulations beneath.

April 26th.—The inner flap has lost its vitality, leaving a sloughy surface as large as a man's hand.

May 3d.—The old ulcer on the lower part of the leg is almost healed. The sore left by the sloughing of the flaps is beginning to contract. Adhesive straps were directed to be applied, to approximate the edges.

June 2d.—The strapping has rapidly reduced the size of the sore. From time to time since the operation it has been necessary to evacuate abscesses, and to lay open sinuses in the popliteal space and on the posterior aspect of the thigh, the sinuses having been formed by sloughing of the subcutaneous cellular tissue. This morning the thermometer indicated an unusual rise of temperature. Another abscess in the popliteal space is found to be the cause.

June 9th.—The sore does not make much progress towards healing. Directed the strapping to be discontinued, and the sore to be covered with cloths wet with liq. sodæ chlorinat., diluted with eight parts of water.

July 1st.—The temperature has approached its normal degree. The healing process is advancing, and the sore is now reduced to about half an inch in width. The patient is able to sit up. The strapping of the limb has been resumed.

August 4th.—Since the last report the healing process has steadily advanced, and to-day the patient was discharged cured.

Case II.—James Bracken, hostler, ætat. 54; admitted to the hospital August 28, 1877.

A year ago the patient first noticed that the veins in his left leg were enlarged. Since last Christmas the same leg has several times been covered with an eczematous eruption. The frequent occurrence of

swelling, pain and a sense of heaviness in the leg, would as often oblige the patient to stop work and rest for a few days.

On admission, his left leg was slightly swollen, and the skin red and scaly. Numerous enlarged and varicose veins were found closely adherent to the adjacent tissues. The internal saphena on the thigh is very tortuous, and its coats greatly hypertrophied.

A lotion of acetate of lead dissolved in water, ʒ j. to Oij., was directed to be applied to the limb; the patient to remain in bed.

Sept. 6th.—The eczema has greatly improved. To-day the patient was etherized, and five pins were introduced beneath the saphena vein, at intervals along that part of its course which lies above the knee. Small india-rubber bands were twisted over the ends of the pins so as to make elastic pressure upon the vein.

Sept. 13th.—No unfavorable signs have appeared about the seat of the operation. Removed one of the pins to-day.

Sept. 16th.—Two additional pins were removed yesterday and the day before. To-day the two remaining pins, viz., the one nearest to the groin and the one nearest the knee, were withdrawn. The operation has had the desired effect of occluding the vein above the knee. The direct channel to the general circulation being thus cut off, the danger of embolism from an operation on the veins of the leg is reduced to the minimum.

Sept. 23d.—Thorp's multiple cautery, heated to a red heat, was applied over the internal saphena vein at two places on the side of the knee, where the vein was very large and tortuous, the iron being allowed to burn its way into the vein. The sensibility of the part had previously been blunted with ether spray.

Sept. 29th.—The most prominent portions of the varicose veins on the inner side of the leg were punctured at twenty points with a single cauterizing needle heated to a red heat. Ice-water dressings were subsequently applied. No undue inflammation followed the operation.

Oct. 11th.—The knots of veins on the anterior and external side of the leg were treated in a similar manner, and with like favorable results.

Oct. 20th.—Discharged cured.

The radical treatment of varicose veins, by any of the means employed by surgeons, is attended with some danger to the life of the patient. And on this account the palliative treatment, by well regulated and uniform pressure, is to be preferred in the great majority of cases.

But in aggravated cases of the disease, rendering the patient unable to earn his living or to support his family, the radical treatment becomes necessary. And in selecting the means of obliterating the diseased veins, we should always aim to accomplish the object in such a manner as to reduce the danger to its lowest degree. The remarkable absence of unfavorable symptoms in the second case herewith reported, would seem to indicate the elastic ligatures and the cauterizing needles as worthy of further trials in the treatment of this troublesome disease.

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Bright's Disease and Resina Copaibæ.—A case of Bright's disease showing the remarkable diuretic effects of *resina copaibæ* is reported in the *British Medical Journal* for November 9th. Fifteen grains thrice daily caused the amount of urine passed to increase, in twenty-four hours, from f. ʒ xxxv. to f. ʒ cxxxix.

## CONGENITAL MALFORMATION OF TRICUSPID VALVE; LESIONS OF ALL FOUR VALVULAR ORIFCIES—SURVIVAL FOR TWENTY YEARS, WITH FEW HEART-SYMPTOMS DURING LIFE.

By ALFRED LUDLOW CARROLL, M.D.,

University of New York.

On the 21st of May, 1878, I was called in consultation by Dr. Arnoux, of West New Brighton, to examine Mrs. V. D., aged 20, who had, within a few days, been attacked with cardiac disturbance of an alarming nature.

I learned from Dr. Arnoux that he had attended the patient in her first confinement, a natural labor, nineteen months previously; and again, about three weeks before our present visit, for a remittent fever, from which she had recovered after a brief illness. On neither of these occasions had there been any symptoms to direct his attention particularly to the heart. She was said to have suffered much from rheumatic muscular pains, but there was no history of acute rheumatism. The existing seizure had been sudden in its access, with much prostration, rapidly increasing dyspnœa, and frequent faintings.

Her aspect was of waxen pallor; pulse rapid, feeble, compressible, and irregular; skin cool. Frequent paroxysms of orthopnœa; the "ladder-like" Cheyne-Stokes respiration typically marked. Feet and ankles slightly œdematous; some ascitic accumulation; liver and spleen enlarged.

The apex-beat of the heart was about two and a half inches to the left of the nipple-line; area of cardiac dulness greatly increased. On auscultation, there was a rasping systolic bruit, loudest towards the apex; the aortic second sound very feeble, and accompanied by a brief, faint murmur; over the pulmonary artery a distinct systolic sound could be heard, and a similar but softer blowing could be detected over the right ventricles. Struck by the apparent signs of congenital malformation, I made further inquiry of the patient's mother, and learned that during infancy and early childhood several physicians had said that her heart was affected, and that she "would never live to grow up;" but that, at the age of about sixteen, she became stronger, gained flesh, and was able to exercise without discomfort.

With such extensive lesions and manifest rapid dilatation of the heart, the prognosis was, of course, hopeless; palliation of the more distressing symptoms during the few remaining days of life being the utmost that we could expect. Under the influence of digitalis and belladonna, with diffusible stimulants, great relief was afforded for a few days. The improvement, however, was but transient, and she rapidly sank, hydropericardium supervening, and death by syncope occurring on the 4th of June.

*Sectio cadaveris*, made June 5, 1878, permission to examine the heart alone having been obtained: Body fairly nourished; rigor mortis not well marked; abdomen distended. On raising the sternum the pericardium was seen occupying the entire space between the sternal ends of the ribs. It contained about ten fluid ounces of serum; no signs of active pericarditis. The heart itself was more than double the normal size. All the cardiac cavities were filled with soft black coagula; their walls thin and pale; a small ante-mortem clot in right ventricle. Fossa ovalis normal. Pulmonary orifice narrowed, barely admitting the tip of the finger. The tricuspid opening

presented a single apron-like valve, attached to the anterior half of the circumference of the orifice, the posterior half of which was a simple cartilaginoid ridge, destitute of any rudiments of cusps. The aortic valves were insufficient and devoid of corpora arantii. The mitral cusps were loaded with warty vegetations, and their edges thickly fringed. The "undefended space" was thin, but intact. Pulmonary artery small; aorta flaccid; great vessels otherwise normal. The lungs were not removed nor incised; they were small, and their surface pale. The diaphragm was bulged upward by ascitic fluid.

I do not recollect any recorded instance of a similar tricuspid malformation, which, regarded as an early arrest of development, would seem to have been rather the cause than the consequence of the pulmonary stenosis. Obstruction of the pulmonary orifice is undoubtedly the commonest of congenital lesions, and in numerous examples has naturally entailed permanent potency of the foramen ovale or solution of continuity in the interventricular septum; but in the present case it appears probable that the fœtal insufficiency of the tricuspid, greatly reducing the ventricular pressure, permitted the pulmonic opening to retain an infantile calibre. Of the lesions in the left heart, the aortic was presumably congenital, the mitral acquired, though evidently of long-past date. Aside from the pathological rarity of the case, it is matter for wonder that the patient should have lived as long as she did with a heart so grievously crippled, and that, too, without marked cardiac symptoms for several years. It is likely that the malarial anæmia and hepatic engorgement were the immediate causes of the rapid failure and dilatation of the heart.

New Brighton, N. Y.

# Reports of Hospitals.

## THE PHILADELPHIA HOSPITAL, PHILADELPHIA.

### Service of FRANK F. MAURY, M.D.,

visiting-surgeon to the hospital.

(Reported for The Medical Record.)

### LUMBAR COLOTOMY FOR STRICTURE OF THE RECTUM DUE TO SCIRRHUS.

——, æt. 43, has enjoyed fair health until within the past fifteen years; does not know of any local injury to the parts; has not passed any foreign body by stool, and has never injured herself with a syringe, etc.; was never troubled with constipation; has been operated upon for internal hemorrhoids; has suffered for the last two years from disease of the uterus; during this period there has been alternate constipation and diarrhœa. The pain following defecation has quite frequently lasted until the next stool. During the past two months there have been constant shooting pains in the neighborhood of the rectum. Her passages vary from two to eighteen a day; they are small and slimy, and frequently contain lumps of hardened fæces; now and then the stools are wire-drawn. Quite recently a sanious and offensive discharge has accompanied the stools; now and then there has been great pain during micturition. The woman often has fever in the afternoon, and has lost altogether some forty-five pounds of flesh. She has been in the habit of taking over f ℥ i. of laudanum daily to quiet the pain.

In commenting upon the case, preliminary to operation, Dr. Maury said: "The operation of colotomy was first performed by Littrè, in the year 1710. He opened the sigmoid flexure in the left iliac region. In 1776. Pillore, a surgeon of Rouen, opened the cæcum in the right iliac region. In 1796, M. Callisen proposed an operation upon the left umbilical region, the incision to be made vertically; but he never carried out his idea. The next surgeon to attempt the operation was Finè, of Geneva, who, in 1797, opened the transverse colon in the umbilical region. So much for the pioneers in the field.

"Very little thought was given to the matter, however, until the time of Amussat, who, in the year 1839, published a treatise on 'The Possibility of Establishing an Artificial Anus in the Lumbar Region.' Though the fact is contested, it is generally believed that Amussat did, in reality, perform his operation upon the celebrated Broussais, whom he was treating for a cancerous affection of the rectum. Of all the operations for colotomy, that of Amussat is generally conceded to be the best.

"The conditions for whose relief the operation may be performed are the following, viz.: 1st. To relieve a distended bowel when an otherwise insurmountable obstacle exists in the rectum and sigmoid flexure. 2d. To remove or mitigate very intense pain caused by the passage of fæcal matter over a cancerous surface, or when the fæces pass into the male bladder through a perforation in the gut, or when motions pass into the vagina, causing a perpetual incontinence of fæces. 3d. To relieve or cure an otherwise incurable stricture and ulcer of the rectum. (See Allingham, St. Thomas's Hospital Reports for 1870.)

"Before beginning to operate, it is in all instances necessary to make a mark on the skin over the course of the incision. The descending colon is always normally situated half an inch posterior to the centre of the crest of the ileum—the centre of the crest of the ileum being a point midway between the anterior superior and posterior superior spinous processes of the ileum. A line, four inches in length, should therefore be drawn midway between the last rib and the crest of the ileum. The centre of the incision or line should correspond with a spot half an inch posterior to the centre of the crest of the ileum.

"The patient should be placed upon a hard couch, in a prone position, with a slight inclination to the right side; a hard pillow should be fixed under the left side, so as to render the loins tense. The operator should always stand in front of the patient.

"The incision should be transverse, or downwards and forwards, as recommended by Bryant. The cut should be of the same length all the way down, otherwise the operator finds himself working in a round pit, when he needs all the room he can get.

"In most cases it will be easy to distinguish the gut by the longitudinal bands of muscle, by the hardened fæces, and by its greenish color.

"After the intestine has been found, it should be drawn out, and an incision made in it about an inch long. The edges of the incision should be stitched to the edges of the external wound. In stitching these parts together a silk suture will be found to be better than a wire suture. The sutures should be passed before the gut is opened, so as to prevent any of the fæces escaping into the wound or abdominal cavity.

"After the sutures have been secured, the wound should be covered with oiled lint, and over this oakum should be laid; a sedative should then be administered, and the patient kept quiet in the recumbent position.

"The sutures may be withdrawn on or after the fifth day. To protect the clothes of the patient from the constant fæcal discharges, an india-rubber cap may be worn; or, what is better, simply a folded napkin applied.

"The morbid conditions which it is desired to remedy by performing this operation to-day are the rectal stricture and the constant racking pain to which the woman is a victim. The stricture is, no doubt, caused by some carcinomatous growth, which will not get well. The operation is by no means an easy one, being attended by not a few dangers and difficulties.

"Dr. Allingham, of St. Thomas's Hospital, who has published a paper on the subject in the St. Thomas's Hospital Reports, has performed the operation some fifty times in all, and has made over fifty dissections.

"As he has shown, there is great danger of the patient's dying on the table from shock, and also considerable danger of peritonitis. In some cases there is so much fat in the parietes and omentum, that it is really quite difficult to reach the colon."

The woman being placed in the proper position, and being thoroughly under the influence of the anæsthetic, Dr. Maury proceeded to make the incision, standing well in front of the patient. The assistants had first, however, painted with iodine on the skin of the left side, a line four inches long, and midway between the last rib and the crest of the ileum.

The operator began his incision as near to the spine as possible, saying that the nearer the incision is to the spine, the less danger is there of injuring the peritoneum. In placing a patient on the belly, while under the influence of an anæsthetic, Dr. Maury had occasion to say that one must needs be very careful that the arms are extended, and do not in any way interfere with the proper expansion of the chest.

The first steps of the operation were retarded by the enormous quantity of adipose tissue present. The operator first exposed the quadratus lumborum muscle, and penetrating the deeper tissues, finally reached the recti spinæ mass. There was, fortunately, but little bleeding up to this point. The lumbar fascia was then brought to view, and divided layer after layer. Here, one of the smaller vessels supplying the part sprang a leak, and was promptly ligated.

Coming upon something which seemed to be intestine, it was hooked up, but turned out to be nothing more than a mass of omental fat. When the gut was finally encountered, it was transfixed with a needle and tacked up well to the lips of the external wound. After the sutures had been secured, an incision about an inch in length was made between the lines of the sutures.

The patient reacted well from the operation, there being no symptoms whatsoever, either of shock or of peritonitis. After the operation, and during recovery, the woman was cut down to a daily quantity of laudanum not exceeding f ʒ i.

She is not yet out of bed entirely, but has been brought before the class upon several occasions, and seems to be making a most excellent recovery.

The operating surgeon was assisted by Drs. John H. Brinton, John Packard, and J. William White, members of the surgical staff of the house.

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LAPARO-ELYTROTOMY was performed by Thos. Whiteside Hime, B.A., M.B., lecturer to Sheffield School of Medicine, on July 14th of this year. This is, probably, the first performance of the operation in Europe since its revival by Dr. Thomas in America.

# Progress of Medical Science.

A NEW POINT OF ORIGIN FOR THE OPTIC NERVE.—Dr. Stilling, of Cassel, asserts that the opinion hitherto held, that the fibres of the tractus opticus have absolutely no connection with the elements of the crus cerebri, is not correct. According to him, a considerable portion of the opticus fibres spring from a large nucleus situated in the foot of the pedunculus cerebri, beneath the substantia nigra. This nucleus has an almond-shaped outline both on vertical and horizontal sections, hence it would not be inappropriate to call it the nucleus amygdaliformis. The bands of fibres entering it from the tractus opticus, in order to reach it, must diverge sharply from their original direction, so as to form an arch. It is probable from the position, size, etc., of this nucleus, that its function is to preside over reflex excitations.—*Centralblatt für die Med. Wissen.*, No. 22, 1878.

CARBOLIZED JUTE is now being used in antiseptic dressings in the place of the Lister gauze. The following is the formula of Dr. Münnich, for its preparation:

| | | | |
|---|---|---|---|
| Carbolic acid crys., | 50.0 | grams..... | ʒ iss. |
| Resin..... | 200.0 | " ..... | ℥ viss. |
| Glycerine..... | 250.0 | " ..... | ℥ viij. |
| Alcohol..... | 550.0 | " ..... | ℥ xviij. |

The resin is mixed with the greater part of the alcohol and dissolved by the aid of heat; after cooling, the carbolic acid is added, having been previously mixed with the rest of the alcohol. After a few minutes add the glycerine. The jute is thoroughly saturated with this mixture, and dried. The addition of 50 grms. (ʒ iss.) of stearin will make the jute more flossy, but it takes longer to dry.—*Dr. Little, in Am. Clin. Lectures*, Vol. III., No. 11.

THUJA OCCIDENTALIS IN EPITHELIOMA.—Dr. John B. Rice, in the *Michigan Medical News* for Dec. 10, 1878, reports a case of supposed epithelioma of the inferior maxilla, of four months' existence, with tumefaction of the submaxillary and sublingual glands. The patient was a man 72 years of age. The ulceration continued to extend in spite of the various modes of treatment adopted. He was put on fourteen drachms of the tincture of thuja occidentalis (arbor vitæ) daily, made from the fresh leaves. In addition, he took five grains of the tart. of iron and potassa, one grain of quinia, and one-fortieth of a grain of arsenious acid. Under the above treatment the ulcer gradually assumed a more healthy appearance. The tumefaction of the glands diminished, and after four months perfect recovery took place.

NECROSIS WITHOUT SUPPURATION.—William Colles, M.D., in the *Dublin Journal of Medical Sciences* for December, 1878, reports the following case:

"F., aged 15, healthy, was thrown from a carriage and received some bruises on the face; also there was a slight transverse wound, about one-fourth of an inch, at the ulnar side of the left wrist close to the joint. Through this opening projected a small piece of very rough bone, which was considered to be the lower end of the ulna broken off and projecting. It could not be restored or retained in position. Two days later she was put under the influence of chloroform, but it was still found impossible to restore the natural form of the limb. It was therefore determined to remove the projecting piece. With this view the piece was caught in a forceps, and a direc-

tor passed behind it. It was found that the latter instrument could be easily passed for a considerable distance in all directions without obstruction from ligamentous or other attachments. On bending the hand backwards, and pressing the director inwards, there slipped out a portion of bone two inches long. On examining the forearm, the bones seemed quite naturally in their position, but perhaps slightly larger than those of the opposite limb. On examining the bone extruded, it was much smaller than would be expected in a person of her age; it was quite devoid of periosteum; no cartilage or epiphysary end, but a small rough deposit of new bone; the upper end irregular, jagged, but in no part did it present any appearance of its having been acted on by living parts; and on section—which was difficult, from the dryness and friability of the bone—the medullary cavity was the same as in ordinary section of bones.

"On further inquiry it was found that about eight or ten years ago the patient fell and received what was called a sallyswitch fracture of both bones; this was treated by splints and rest; she recovered with perfect use of the limb, but there was a slight thickening of the bone.

"That this was a case of necrosis there can be no doubt; and if it was the result of injury, it must have been of only two days' duration, which is scarcely possible, for the bone to die, to lose its periosteum, cartilage, and epiphysary end, and for a new case to be formed around the dead bone. Hence it was more probably the result of the fracture received so many years ago."

On the Use of Pyrogallic Acid in Internal Hemorrhages.—In the *Dublin Journal of Medical Sciences* for December, 1878, Dr. Vesey advocates the use of pyrogallic acid in hemorrhage in phthisis in the hemorrhagic diathesis and from the intestines. He gives it in a one-grain dose, repeated every hour.

He claims for it the following advantages: the dose is small; it does not derange the stomach; it does not cause vomiting, as iron and ergot mixtures sometimes do; it is easily taken, and has no disagreeable after-taste. It appears to be more rapid and certain than other remedies.

A spirit solution of definite strength affords a convenient and ready method of administration. It is readily soluble in water or spirits.

A Fatal Case of Railway Spine.—At a recent meeting of the Medical Society of the College of Physicians in Ireland (*British Medical Journal*, Nov. 30, 1878), Dr. M'Swiney detailed at length the particulars of the case of a young unmarried lady, who had been severely shaken exactly six weeks before her death in a collision between two trains on the Kingstown and Dalkey Railway on February 27, 1878. Unfortunately, a post-mortem examination was not permitted. In this patient, the remote sequelæ were more noticeable than the immediate effects, and this agrees with what has been observed by others as to the results of that form of "shock" which is consequent on a railway collision. Wasting and epileptiform "fits" were marked symptoms about the end of the illness. The general muscular atrophy was very considerable; so much so, that the patient presented, towards the close of her life, an extremely wasted appearance. The "fits" ushered in the final event. The progressive muscular atrophy was due, doubtless—as possibly was also the quick pulse—to some morbid condition of the sympathetic ganglia; whilst the convulsive symptoms would perhaps indicate ultimate extensive degeneration of the spinal cord, following upon the original "jar" or "shock" to the organ. Suspicions (sometimes, doubtless, well founded) are often entertained that patients "malinger" after railway accidents, and even that death, when it occurs, is due to some cause other than the collision. The following physical facts, however, were to be observed in this case: *a.* Vaso-motor paralysis, indicated by flushings and injected conjunctivæ; *b.* An affection of hearing, denoted by the effect produced by street noises; *c.* Disturbed nutrition, evidenced by wasting; *d.* Certain neuroses, *i. e.*, hysteria and epileptiform convulsions; *e.* Quick pulse, which is almost constant in railway injuries; *f.* Change of character, sleeplessness, and constipation.

Compensatory Emphysema in Acute Thoracic Diseases.—Dr. Reuben J. Harvey has endeavored to disprove the idea that the peculiar condition of resonance, sometimes amounting to tympany, met with in the course of certain acute thoracic diseases (pneumonia, pleural effusion, etc.), can be due, as held by some, to the development of compensatory emphysema. The fact being established that the distending force acting upon the lung in inspiration can never be greater than fifteen pounds to the square inch, it was argued that the one essential condition for the production of compensatory emphysema is that a portion of lung should have to expand into an abnormally large space—too large, in fact, for its natural expansibility. Such a state of things is met with in certain conditions of pleural adhesions; but, in the case in question, this condition was not present, but, on the contrary, the very reverse existed: the unaffected portion of lung occupied a very much smaller space than usual, and was often found post-mortem collapsed to its normal undistended volume. The views put forward in modern text-books—as, for example, those by Guttmann and Gee—were shown to be in accordance with these anatomical conditions. According to them, diminished tension of the pulmonary parenchyma is a source of tympany; and this, and not the reverse condition of normal distention, is the cause of the phenomenon in question. According to Guttmann, the normal chest percussion-sound is due to three factors, viz.: vibration of the chest walls, vibration of the air in the lungs, and vibration of the tense pulmonary parenchyma; and it is owing to the musical interference of these factors that a tympanitic note does not exist. A lung taken from the body, and percussed in its collapsed condition, gives a tympanitic note; but, if distended to its normal intrathoracic volume, it gives a non-tympanitic sound. The disappearance of the tympany is due to the new factor introduced by rendering the parenchyma sufficiently tense to be itself a source of vibration; or, in the reverse case, when the tension is diminished, owing to a large hepatized globe or a pleural effusion, a cause of interference is lost, and tympany is developed.

Gastro-elytrotomy.—A very interesting historical account of this operation, by Henry J. Garrigues, M.D., has been reprinted in pamphlet form from the *New York Medical Journal*. It was first proposed by Joerg in 1806, but his idea was an incision in the median line involving the peritoneum. In 1820, Ritgen, profiting by Joerg's suggestion, and improving on it, performed the operation by a lateral incision above Poupart's ligament and elevating the peritoneum. He incised the vagina, however, instead of tearing it, and the operation was abandoned, a living child being delivered by Cæsarean section. From 1823 to 1844 Baudelocque, apparently ignorant of

his predecessors, championed this operation or some of his numerous proposed modifications of it, and performed it in two cases unsuccessfully. From this time it was forgotten, or mentioned only to be deprecated by the authorities on obstetrics, until 1870, when Dr. T. G. Thomas performed it, and delivered a living child. Dr. Thomas has since operated once, and Dr. Skene, of Brooklyn, three times, making in all five cases; of these, three of the mothers are still alive, and four living children were delivered; the fifth child was dead before the operation was undertaken, and the two women who succumbed were in *articulo mortis*. The necessity of tearing the vagina instead of cutting it is strongly insisted upon, as troublesome and even dangerous bleeding from the vaginal plexus is thus avoided. The operation cannot be repeated upon the same side, as it would be impossible to raise the peritoneum and lift the vagina. When the head is wedged in the pelvis so that it cannot be pushed up, the incision of the vagina becomes impossible, and the operation is contra-indicated. The obstruction offered by the presence of a solid tumor in the vagina or uterus, or by atresia or coarctation of the vagina, may also be a sufficient contra-indication. Dr. Garrigues's conclusions are: 1. Gastro-elytrotomy ought, when possible, to be performed instead of Cæsarean section in all cases; and instead of operations by which the fœtus is broken up when these would be particularly difficult, especially when the smallest diameter of the pelvis measures two inches and a half or less. 2. It does not require exceptional skill, or rare instruments. It is, indeed, less difficult than ovariotomy and herniotomy. 3. Five assistants are desirable, and four indispensable, in order to carry out Thomas's plan.

Treatment of Scrofulosis by Tayuya.—Starting from the idea that scrofula is allied to syphilis as well as to tuberculosis, Dr. Alpagonorello was led to try in the first-named disease the tincture of tayuya, which has been employed with success by Dr. Faroani in the treatment of syphilis. The results so far have been very satisfactory. He administered it internally in doses of from two to ten drops a day in several chronic cases of hypertrophied and suppurating glands, employing it at the same time externally as a lotion in the proportion of four parts of the tincture to 200 of water. Within a few weeks the wounds had healed, and the general health of the patients had greatly improved. The remedy deserves further trial, especially as it possesses a great advantage over cod-liver oil in having no unpleasant taste or smell.—*Allg. Med. Cent. Zeit.*, Nov. 2, 1878.

On the Employment of Laminaria Digitata in Catheterism of the Lacrymal Passages.—Dr. Rousseau recommends the use of a wedge of laminaria digitata in place of the pointed stylet usually employed to dilate the punctum lacrymale previous to catheterism. The use of this stylet is painful, and, as a rule, alarming to the patient. He shapes with a knife a small wedge of laminaria, about one-third of an inch in length, pointing it sharply at one end. This sharp end is easily introduced into the punctum, and at the end of five or six minutes the wedge is swollen by the imbibition of tears, and the punctum sufficiently dilated to allow of the passage of any desired instrument.—*Jour. de Méd. de Bordeaux*, Sept. 7, 1878.

Rheumatismus Acutus Diaphragmatis.—The diagnosis of a rheumatic or neuralgic affection of the diaphragm can rarely be made with anything like certainty; but in the following case, which occurred in the Vienna General Hospital, the clinical history was thought to admit of no other interpretation. The patient—a strong, muscular butcher, 27 years of age—was seized on the morning of his admission to the hospital with exceedingly violent pains, radiating from the pit of the stomach to the back. The respiration was quick, short, and superficial, and purely thoracic; the abdominal movements which attend contraction of the diaphragm being almost entirely wanting. The face was congested, but there was no febrile movement. The patient, though a strong man, seemed to be entirely overcome by his suffering. The examination of the thoracic organs revealed nothing abnormal. A hypodermic injection of morphine relieved the pain at once, and produced a quiet sleep. On the following morning the patient complained of pains in the right scapular region, but the respiration was not interfered with. A careful objective examination again gave negative results. An injection of morphine at the seat of pain proved as promptly efficacious as on the preceding day. On the third day the patient was discharged entirely cured.—*Bericht der k. k. Rudolph-Stiftung in Wien*, 1877.

Development of Aortic Insufficiency in a Case of Acute Rheumatism Treated by Salicylic Acid.—Dr. Mader, of Vienna, reports this case as the first occurring in his experience, in which a valvular affection of the heart was developed in the course of an attack of acute rheumatism treated by salicylic acid. The patient, a waiter, 25 years of age, was admitted into the Vienna General Hospital on April 25th with a history of having suffered for four days from fever, pains in the joints, and a stitch in the side. There was no swelling of the joints, and the heart-sounds were normal. On the 27th there was distinct swelling of the joints, and the patient was ordered 75 grs. of salicylic acid per diem. On the 29th the articular swelling had diminished, and the daily dose of the acid was reduced to 60 grs. On May 3d the improvement was so great that the acid was stopped. On the 5th of May it was noticed, for the first time, that the heart's impulse was heaving when the patient lay on the left side; and an examination then revealed a distinct, blowing, diastolic murmur at the aortic opening, and a muffled sound in the cruralis. It was impossible to say exactly when the endocarditis revealed by these physical signs had begun; but it was, at all events, certain that no murmurs existed at the time the salicylic treatment was initiated.—*Bericht der Rudolph-Stiftung in Wien*, 1877.

Colchicine Injections in Ischias.—In the cases of two girls suffering from sciatica that had already become somewhat chronic, Dr. Mader, of Vienna, made repeated trials of the injections of a one per cent. solution of colchicine, recently recommended so highly by Heizfelder. The injections caused as a rule exceedingly severe pain, followed by swelling and great soreness, which persisted for several days. The patients on a few occasions stated that their old pains were diminished for a short time after the injection (perhaps deadened by the new pains), but on no occasion was a permanent effect obtained.—*Bericht der k. k. Rudolph Stiftung in Wien*, 1877.

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A Good Tooth-Paste.—℞. Cretæ precip., 16 oz.; pulv. iridis., 4 oz.; pulv. ossis sepiæ, 1 oz.; magnesiæ carb., 2 oz.; moschi, 4 grs.; essent. bergamot, 2 drachms; ol. cinnam. ver., 2 min.; cochinillæ, 2 drachms; syr. simp., q. s. ut. f. past. dent.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, January 18, 1879.


## THE CARE OF THE INSANE.

MANY of the annual reports of these institutions have lately been presented to the public. A study of their contents cannot but suggest some uneasy feelings to the taxpayer as well as to the humanitarian. We find that, even in so millennial a spot as Massachusetts, $3,000,000 were spent in erecting the last two of its four great asylums; and other States are not behindhand in such large expenditures. It is impossible not to feel that there is some extravagance in thus devoting a million and a half of dollars to the erection of a magnificent edifice, which is subsequently to board one hundred and fifty lunatics at six dollars a week. Still it is not so much the mere expenditure of this money to which there is objection. No one can begrudge the unfortunates anything that may help them. But too often these structures only exhaust the State funds in embalming the aspirations of the architect, and are not especially adapted to the improvement of the insane. Their inmates do not need opportunity to saunter through marble halls half as much as they require the watchful attendance of a physician. And we find that, after the asylum is built, there is generally not enough money to supply the patients with effective care. In many places there is only one physician to three or four hundred patients, and one nurse or keeper to forty or fifty patients. The physicians who are in attendance are either poorly paid, or not paid at all, and only the medical superintendent remains in the institution long enough to become familiar with its workings.

An asylum must be very favorably situated if it have a pathologist connected with it. Yet in insane asylums the mortality is often as great as it is in a regular hospital. The insane are liable to phthisis, and they often develop it without giving any rational signs at first. There are affections of the special senses, of the nervous system, and there are surgical troubles which complicate or cause the insanity. All these things, as well as the disease itself, call for the attention of skilful men. Therefore we cannot see the propriety of spending a thousand dollars on the landscape garden, and only six hundred on an attending physician—a proportion too often observed. In addition, the construction of these costly asylums perpetuates a system of treatment which may before long be abandoned as unscientific and inefficient. It is not too much to suppose that something better can be devised than the present plan of allowing patients to mope all day in a dreary corridor, and exhilarating them once a week with a dance or a drive. Already an entirely different system is successfully working on the other side of the water.

It is estimated that the average duration of life of a person who becomes insane at the age of thirty is from seventeen to twenty years. His cost to the State during this time, at the lowest estimate, is over three thousand dollars. It is evident, therefore, that the cure of the insane is an important item even from a financial standpoint. It falls especially upon the medical profession to see that the best means are taken to secure this end. And for securing it we not only need less extravagance at first, and ill-judged expenditure or parsimony afterwards, but better regulations in regard to the admission and discharge of patients will have to be adopted. It is well known that the earlier a case of insanity is placed under treatment the better chance there is of recovery. But if a poor and friendless man becomes insane, he is very likely at first to get into a poor-house, a work-house, or a prison, and there remain for a longer or shorter period. At the same time, the asylums themselves are constantly overcrowded, and, in this State at least, the percentage of insane has been increasing at a rate vastly greater than that of the population. There can be little doubt that part of this is due to the abuse and misapplication of this charity in common with that of so many others.

The expenditures for the insane have been very large, and their steady increase seems at times appalling. It is greatly to be hoped that a feeling may be created which will compel a more rational and judicious application of the appropriations for this unfortunate class.

### THE STATE MEDICAL SOCIETY.

THE Medical Society of this State consists of two sorts of members: First, those who are elected quadrennially by the county societies to represent and guard their interests, with the title of delegates; and second, those who, having actually served as such for a stipulated period, are elected by the Society permanent members. Both delegates and permanent members, when in attendance at the sessions of the Society, enjoy the same rights and privileges, except that the delegates are in a measure subject to the control of the county societies, and obliged to

act in accordance with the instructions that may be given them. The permanent members are independent in this respect. A good many years ago, however, the permanent members obtained the ascendancy, and enacted a by-law which restricted certain important offices to their own members, and by their influence, not sanctioned by law, kept almost constant control of the higher offices of the Society. This power was so well consolidated that it has been asserted that the presiding officer could determine who his successors should be for several years after. The first attempt to break this monopoly was made in 1877, by the then president, Dr. Squibb, who, in his opening address, recommended that the by-law which gave the presiding officer the power to appoint the nominating committee, should be changed in such a way that this power should accrue to the Society itself. The special committee to whom the president's address was referred, reported adversely concerning this recommendation, but the Society, by the requisite two-thirds vote, adopted it. (*Trans.*, 1877, p. 41.) The next step was the report by Dr. Hutchin (*Trans.*, 1878, p. 53), which clearly exhibited the impropriety and illegality of the by-law restricting certain offices to permanent members. This by-law, although disregarded for the last year or two, still remains unrepealed.

The renewed importance that this action of the State Society confers on the office of delegate is not to be overlooked, and our satisfaction is only tempered by the regret that these first steps toward reform were not taken by the members from our own county. While thus offering words of commendation we must at the same time draw attention to one or two matters that still need correction. The functions of the Society are of a two-fold character, scientific and legislative. The presiding officer usually makes it his special duty to see that the Society does not suffer as regards the former, and as a consequence there is always a full supply, in fact, a superabundance of literary offerings —brain-food in plenty. As regards the latter, it must be remembered that the whole medical policy of the State is shaped by the action of the Society, and that upon its wise action depends in a measure the material welfare of the profession. As a matter of necessity all questions pertaining to this should receive the most careful consideration. This is impossible in full session, unless the points at issue be thoroughly examined in advance by appropriate committees. To do this the committees should have ample time at their disposal, so that all of them, if necessary, may conduct their private deliberations simultaneously. At the last meeting this could not well be done, as one gentleman was a member of two important committees, and another gentleman was a member of three. Of the two hundred members in attendance was it not possible to find a larger number who were able to share this labor?

The second point to which we direct attention is the exhibition of surgical instruments patented by physicians. The Code of Ethics of the American Medical Association, to which the State Society demands the adherence of all physicians under its jurisdiction, declares that it is "derogatory to professional character," . . . . "for a physician to hold a patent for any surgical instrument or medicine." At the last meeting several such instruments were openly exhibited in the antechambers of the session-room of the Society. One of these was patented by a physician from Kings County, and another by one who is high in office in one of the societies in the central portion of the State. Lastly, the seats of members were cushioned with the advertisement of still another patented appliance, which, moreover, was highly recommended by a late officer of the State Society itself! Surely, if the patenting of instruments by physicians is proper, the State Society should formally release the members of the county societies from allegiance to this portion of the American code. If, on the other hand, it is improper, the State Society exhibits a shade of inconsistency in permitting the exhibition referred to within the apartments presumably under its control. If abuses and loose methods of transacting business are again to be a feature in its management, the State Society will soon lose the respect of the profession, and become the prey of medical politicians, rather than the arena for the display of the highest and best thoughts of medical statesmen.

### SOCIAL SCIENCE AND ADULTERATIONS.

THE American Social Science Association held its annual meeting at Boston last week. As this science is a very elastic department of human knowledge, the yearly assembling of the Society furnishes excuse for papers on a very wide range of topics. Consequently it happened that some contributions of interest to the medical profession were included. Bearing in this direction was an essay by the Secretary on the evils of ill-constructed tenement-houses and other buildings, in which the people live, work, or are educated. And New York was asserted to head the list of cities whose poor are badly housed—a fact perhaps not especially new.

A more notable paper was read by Mr. G. T. Angell. It was entitled "Public Health Associations," but treated especially on adulterations. According to Mr. Angell, we are in an extremely bad way. Nearly everything we eat, and most of the things we wear, are adulterated. Our cook, wearing a poisoned dress, puts poisoned food in a poisoned dish, and sends it up to be eaten in a poisoned atmosphere. Our bread, made of potatoes and alum, is covered with butter made from the fat of unknown animals and alive with parasites. We pour our watered milk into adulterated tea and sweeten it with sugar made heavy with iron and corrosive with acid. We shake out red lead

with the Cayenne pepper and spread on chromate of lead with our mustard. Our baking-powders are adulterated with alum and terra alba; the terra alba is mixed with sugar and cream of tartar: sugar is poisoned with tin and iron, while even the tinware is made dangerous with lead. And so on in a toxic round of very depressing proportions.

Now, while all these adulterations probably occur, we have no doubt that most of them are infrequent or innocuous. We imagine that Mr. Angell knew this also, but hoped to create a deeper impression by a massing of his facts. There is, indeed, reform required in this direction, and for a reform we need an alarmist. Therefore, Mr. Angell's facts have their uses, though they need not throw the public into a state of anorexia, as they might well do if taken literally.

As the practical outgrowth of this contribution, a petition was circulated praying for the incorporation of "The Public Health Association of Massachusetts."

### HOSPITAL SUNDAY.

A CONFERENCE meeting, composed of the representatives of the leading hospitals, was recently held in this city, to consider the necessary steps for establishing a "Hospital Sunday" for the benefit of such institutions. After a long debate, which, however, was mostly confined to prospective details of a general plan of operation, it was finally determined that a Sunday in each year shall be devoted to a church collection of funds in aid of hospitals, and that the previous Saturday be a day for general collection with the same object among the Israelites and amid the non-church-going public at large.

There does not appear to be any question concerning the ultimate success of this movement, and the great benefit which would necessarily accrue to the various charitable medical institutions. Experiments of making collections upon a certain day have been tried with great success in England, and the popularity of Hospital Sunday in all the churches there is a matter of history. There is no reason why, with proper and consistent management, the movement should not be attended with like results. The very fact that there is to be a "Hospital Sunday" so designated will give a popularity to the movement, will arouse general attention in the right direction, and will be a healthy stimulus for that well-directed charity which always commences at home.

There is no doubt also that while the poor of the hospitals will be the gainers by this movement, that there will be also an opportunity for contributions in many churches which has never been offered before, and which opportunity will be gladly taken advantage of by such congregations. The committee having the matter in charge will doubtless, at no distant time, present a general plan for the collection and distribution of the funds. In regard to the latter point, there will, of course, be a division in accordance with the percentage of charity patients treated in the different institutions. This would, of course, give no opportunity for unequal or sectarian distribution. It is unecessary to say that we wish the committee having the matter in charge abundant success.

### HUMANITY IN EXECUTIONS.

THE condition of public opinion on matters of humanity seems to be a rather anomalous one. Brutality to the lower animals arouses an indignation which speedily checks it by effective laws. Our dogs and horses live tenderly, and die scientifically. On the other hand, if a man is condemned to die, he is likely to be immured in a cell till he is frenzied or imbecile, and then taken out and barbarously asphyxiated. The question of the right or expediency of capital punishment we need not discuss; but if a man's life is to be legally destroyed, the method should be as little revolting as possible, and not be left to the invention or choice of some conceited and ignorant executioner. This business of choking to death is bad enough, no matter how scientifically it may be done; but when, as in a recent case, there was preventable and stupid blundering, the hangman perpetrates a crime against humanity.

## Reviews and Notices of Books.

THE PHYSICIAN'S VISITING-LIST FOR 1879. Philadelphia: Lindsay & Blakiston.

THIS standard visiting-list makes its usual annual visit. For completeness, compactness, and simplicity of arrangement, it is excelled by none in the market.

A TREATISE ON THE SCIENCE AND PRACTICE OF MIDWIFERY. By W. S. PLAYFAIR, M.D., F.R.C.P., Professor of Obstetric Medicine in King's College, London, etc. Second American, from Second and Revised English Edition. Edited, with Additions, by ROBERT P. HARRIS, M.D. 8vo, 639 pages, with 182 illustrations. H. C. Lea: Philadelphia. 1878.

To the student we can say that no better work on obstetrics than Playfair's can be found. Pelvic anatomy, ovulo-menstruation, physiology, conception, changes during and the diagnosis of pregnancy, are fully though concisely described. LABOR, its mechanism, its abnormalities, its dystocia, its management, are treated in the soundest and most reliably practical manner; all the advances in the obstetric art, up to the very day of publication, are to be found lucidly recorded in this most valuable work. The same may be said in regard to the pathology and treatment of the puerperal state, which closes the volume. To the practitioner we especially recommend this volume, on account of its wide range of subjects, practical, new, and sound teachings, and comprehensively concise style, making it a *multum in parvo*.

The fact that a second edition appears in less than two years subsequent to the first issue, is in itself a sufficient recommendation of the worth of the book.

Under the present circumstances, this volume needs no extended review from us; but we will simply

point out some of its excellent points, not omitting to designate where improvements might be made.

The anatomy of the pelvis and pelvic organs is lucidly described and well illustrated. Conception and generation, those changes which occur in the ovule and uterus after impregnation, are described in so concise and clear a manner, and so beautifully illustrated, that this rather difficult part of physiology cannot fail to be understood by the student. The same may be said of the anatomy and development of the fœtus. In regard to the non-shortening of the cervix during pregnancy, we are sorry to notice that Dr. Playfair still omits to mention Prof. Isaac E. Taylor's labors on the subject. This is inexcusable, since Dr. James C. Reeves, in reviewing the first edition (see *Amer. Jour. Med. Sci.*, Jan., 1877), called attention to this omission. Pregnancy, its organic changes, diagnosis, abnormalities, and diseases, is very satisfactorily described. Let cerium oxalate be given in gr. x. doses, and greater success will follow its use in the vomiting of pregnancy. Curiously enough no mention is made of the use of atropia or hyoscyamia in this trouble. On page 206, line 9, the word *knee* should be placed between "and" and "position." The mechanism of labor, as described by Dr. Playfair, is eminently simple and practical. Illustrations from Hodge's great work are here introduced to special advantage.

The engraver has not been fortunate with fig. 98, p. 264, since the vertex appears to be in the right occipito-iliac (transverse), instead of the right occipito-sacro-iliac position, as designed.

The author certainly gives very excellent rules for the management of labor.

In the management of the perinæum during the delivery of the head, we again notice the absence of the method, so ably advocated by Dr. I. E. Taylor, namely, the retention of the head upon the perinæum during the *absence* of pains—thereby preserving gradual and constant dilatation of the vulva—by pressure upon the fœtal forehead with three or four fingers behind the anal orifice, and in front of the coccyx. The importance of delivery of the placenta by *expression* instead of traction upon the cord, receives the fullest attention.

Dr. Uvedale West's views on non-rotation in occipito-posterior positions are here elucidated and accepted (p. 307). The editor adds a very interesting and practical article on *ante-partum* hour-glass contraction of the uterus, or, as he calls it, "tetanoid falciform constriction of the uterus."

Pelvic deformities are described most satisfactorily. Fig. 125, p. 369, shows rather too large dimensions, especially in the inferior diameter, to satisfactorily represent an "adult pelvis retaining its infantile type."

Dystocia from all causes are treated by Dr. Playfair in a most rational and fearless manner. He is not afraid of operations where necessary, excellent rules for which he lays down.

A woodcut illustrative of Barnes's theory of placenta prævia would have added to the elucidation of the subject.

Dr. Playfair's chapters on "obstetric operations" are truly excellent. Considering their wealth of illustration, their concise comprehensiveness of details, and the very valuable additions of the editor, we can honestly say that they are the best in the book, and unequalled in any other work of the kind. We are surprised that the editor did not add a figure and description of Dr. Lusk's cephalotribe, which is certainly the equal of Hicks's.

A most excellent formula (Prof. Frankland's) for the preparation of artificial mother's milk is given. The author looks upon that ill-named "puerperal fever" as simply a septicæmia developed during the puerperal condition, whether complicated by metrit s or peritonitis, or both, or neither, matters not as to its essential pathology. Every physician should read the views herein set forth, and the rules for treatment therefrom deduced.

HABITUAL DRUNKENNESS, AND INSANE DRUNKARDS. By JOHN CHARLES BUCKNILL, M.D., London, F.R.S., F.R.C.P. Eng., etc., etc. 12mo, pp. 103. London: Macmillan & Co. 1878.

WITHIN this small volume are brought together various papers and remarks of the author upon the topic which heads this notice. To those interested in the subject of drunkenness his views are well known, no doubt. Dr. Bucknill holds that habitual drunkenness is a vice, is not a disease, although it may produce the latter; being a vice it should be treated as such, by moral influences and proper surroundings, and this moral punishment should be inflicted by the State. He has no faith in the so-called reformation of drunkards; he denounces private inebriate asylums as worse than useless. "The only institution in which I did find good, honest, earnest work being done was the inebriate Reformatory at Philadelphia, in the management of which the idea of curing a disease is steadfastly put on one side." We recommend this little book to all our readers who are interested in such matters as containing much food for careful consideration, since the author's convictions spring from an honest, philosophical, and humane view of the subject.

CONSPECTUS OF ORGANIC MATERIA MEDICA AND PHARMACAL BOTANY. By L. E. SAYRE, Ph.G. Philadelphia: D. G. Brinton. 1879. Pp. 211.

THE work commences with a chart containing all the officinal drugs of organic origin. They are arranged according to their natural botanical orders, the officinal names of each substance being followed by the botanical and common name of the plant from which it is derived, together with the habitat, part used, constituents, principal medical properties, dose, and officinal preparations. This is followed by about thirty pages devoted to structural botany. The rest of the book is devoted to the consideration of the characteristics and properties of the individual drugs. The work will prove useful for reference.

TRANSACTIONS OF THE NEW HAMPSHIRE MEDICAL SOCIETY (88th Anniversary), held at Concord. Concord, N. H.: Republican Press Association. 1878.

THE papers in this volume, though few in number, are good in quality. The president's address calls for no special notice, being general in character. "The Pauper Insane of New Hampshire," by J. P. Bancroft, M.D., of Concord, is a plea for the proper treatment and care of these unfortunates under the supervision of alienists who are directly responsible to the State. The next paper, a "Report on Surgery," by William Child, M.D., of Bath, is too short to be valuable. "Some of the Risks and Responsibilities of the Profession," by E. E. Graves, M.D., of Boscawen, may be read with interest and profit. A judicious argument may be found in "Reasons for Modern Alcoholic Stimulation Examined," against the wholesale and routine use of alcohol in disease, especially fevers, etc. The opinions of a large number of leading practitioners in the United States—Isaac Hays, Alonzo Clark, Flint, Parker, Gross, Ellis, Bowditch, Post, and

others—as to a change in the type of diseases, are to be found herein recorded. D. S. Adams, M.D., of Manchester, follows with an excellent paper on "Carcinoma." Among other things, he says (p. 111): "I am frank in saying that I do not believe that any person, with our present state of knowledge, can distinguish benign from malignant tumors in all cases by microscopic examination alone. The last, though by no means least valuable, paper is from the pen of Dr. L. Duncan Bulkley, of this city, on "The Use of the Solid-Rubber Bandage in the Treatment of Eczema and Chronic Ulcers of the Leg."

Obituary notices appear of the late Professors Alpheus B. Crosby (by J. W. Barstow, M.D.), and Edmund R. Peaslee (by H. T. Hanks, M.D., of this city), and of Albert Smith, M.D., LL.D. (by Henry M. Field, M.D.), one of the lights of the profession in New Hampshire. Three other obituary notices close the volume.

CLINICAL DIAGNOSIS: A Handbook for Students and Practitioners of Medicine. Edited by JAMES FINLAYSON, M.D., Physician and Lecturer in the Glasgow Western Infirmary; Examiner in Clinical Medicine, etc., with eighty-five illustrations. Philadelphia: Henry C. Lea. 1878.

THIS manual is destined to hold its own among many superior works of its class. Besides the editor, Drs. W. T. Gairdner, Wm. Stevenson, Alex. Robertson, Samson Gemmell, and Joseph Coats, all well-known Scotch physicians, have contributed articles relating to their several specialties. The style of presenting the various methods of making a diagnosis is a model of conciseness and quite suggestive in character. Without any pretence at exhaustiveness, it still can lay claim to being a work of reference of no mean order; at all events, the reader will not be disappointed.

# Reports of Societies.

## MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

*Stated Meeting, December* 23, 1878.

DR. FREEMAN J. BUMSTEAD, PRESIDENT, IN THE CHAIR.

THE AID WHICH MEDICAL DIAGNOSIS HAS RECEIVED FROM RECENT DISCOVERIES IN MICROSCOPY.

DR. CHARLES HEITZMAN delivered an interesting lecture upon the above subject.

After prefatory remarks to the effect that the physician who was not familiar with macroscopy and microscopy was very much like the Indian medicine-man who worked without anything to guide his experience, he proceeded to the demonstration of certain points which had been reached, and that enabled him to make diagnoses which, six years ago, were impossible.

He first spoke of

URINARY SEDIMENTS, ESPECIALLY TUBE-CASTS; RECENT RESEARCHES ON THEIR ORIGIN AND VARIETIES; THEIR DIAGNOSTIC AND PROGNOSTIC VALUE.

In order to understand the urinary sediment it was necessary to be familiar with the anatomy of the kidney, and the anatomy of the kidney could not be understood without familiarity with its entire histology. When that was mastered the study of the urine could be commenced.

The anatomy of the kidney was first considered, and a detailed description given of the structure of the cortical and the pyramidal substance.

There were mainly three kinds of inflammatory processes in the kidney, formerly considered under the general term Bright's disease. He thought, however, that such terms as Bright's disease and Pott's disease were general terms, and should not be used by scientific men.

The inflammatory processes in the kidney were mainly of three kinds: 1. Catarrhal; 2. A more severe form, or croupous; and 3. A still more severe variety, suppurative nephritis.

The catarrhal process consisted essentially in a serous exudation, in which there was desquamation of a certain amount of epithelium that could be seen in the urine. That primary condition could give rise to new connective tissue formed from epithelia, and at last terminate in the small granular kidney. If, therefore, we found in the urine a varying amount of albumen with epithelia of the kidney, recognized by their size, we could determine positively that an inflammatory process of a milder character was going on in the organ; in other words, that the patient was suffering from catarrhal nephritis.

In another series of cases there was present in the urine a varying amount of albumen and tube-casts.

Dr. Heitzman believed that the tube-casts consisted of protein substance, or a modified form of fibrinous or albuminous material. Hence there was no good reason for omitting the term *croupous nephritis*. He then referred to the various theories which had been given regarding the formation of tube-casts: 1. That an exudation took place in the tubules, coagulation occurred, and casts were formed; 2. That the epithelium lining the tubules was transformed into casts; and 3. That the casts were produced by the coagulation of material secreted by the epithelia themselves. The latter was the theory which he adopted.

A brief description of the various kinds of epithelium found in the uriniferous tubules was then given: 1. The epithelium of the convoluted tubules, which he thought were separated by a cement substance; 2. The flat epithelium of the loops of Henle; and 3. The cylindrical epithelium in the straight tubules.

In sections of kidney, which were the seat of croupous nephritis, cast material could be seen in the tubules; and of casts there were five varieties:

1. Hyaline casts; 2. Epithelial casts; 3. Blood casts; 4. Fatty casts; and 5. Waxy casts.

There might be a sixth variety, or granular casts.

In ordinary acute croupous nephritis there were found in the urine hyaline and epithelial casts; but if the disease was very severe there might be blood casts.

In the chronic stage of the disease there were found granular casts; and if fat globules were present it was indicative of fatty degeneration of the kidney. Lastly, if waxy casts were found in the urine it was evidence that we had to deal with a waxy degeneration of the kidney.

Dr. Heitzman believed that whenever casts appeared in the urine they indicated severe disease of the kidney, namely, croupous nephritis.

A recent German writer had advanced the opinion that mere hyperæmia of the kidney could give rise to casts, but he doubted the correctness of that opinion.

Not only did casts indicate the stage and the nature

of the disease, but they also indicated the portion of the kidney which was the seat of the disease. In the mildest cases the casts were from the loop tubules and the convoluted tubules of the second order. If the number of casts from the convoluted tubules was considerable, it was known that the cortical substance was chiefly invaded. The mere size of the casts, besides the number and the character of the cast, was indicative of the disease called croupous nephritis. We very often met with casts from the convoluted tubules with stump-like attachment, which indicated that they had also been formed in part in the straight tubules. That was a form of cast which he had not seen described, and indicated the exact situation of the inflammatory process. Based upon these principles, he had been able to make a diagnosis by examination of the urine alone, and had seen his diagnosis proved true by the subsequent history of the cases. As an illustration, the urine of a boy, six years of age, was brought to him for examination. He had suffered from a very slight attack of diphtheria. Three varieties of casts were found in the urine, and the case was set down as one of severe croupous nephritis. The boy died three days after in a convulsion.

There was possibility of recovery from croupous nephritis under the following circumstances: 1. When it occurred in connection with scarlet fever; and 2, when developed in connection with pregnancy, or, as occasionally happened, after delivery. In the first instance recovery was due mainly to the recuperative power possessed by children, and in the second class of cases it was because only one kidney, as a rule, was affected. Perfect recovery in both instances was possible.

With reference to *pus corpuscles* he was able to tell where they came from only when they were mixed with epithelia, which indicated the seat of the disease. If pus corpuscles with flat epithelia were found in the urine it was evidence that suppuration existed in the bladder. If the caudate epithelia were present with pus corpuscles it was evidence that the pelvis of the kidney was the seat of the suppurative process.

If small epithelial cells were found with the pus corpuscles it was evidence that the inflammatory action was in the kidney itself.

It was only in acute cystitis that the flat epithelial cells with pus corpuscles were found. In chronic cystitis the flat epithelia were absent, and black pigment was found in the pus corpuscles.

Again, if pus corpuscles with epithelia from the kidney were found in the urine it was evidence that more or less dangerous suppurative process existed in the kidney. If hematoidine crystals were found in the urine it was evidence of chronic morbid process, and if associated with pus corpuscles, of a chronic suppurative process.

In the second place, Dr. Heitzman spoke of the

MICROSCOPICAL EXAMINATION OF THE SPUTA, AND ITS VALUE IN THE DIAGNOSIS OF LUNG DISEASE.

The chief elements met in the sputa were mucous corpuscles and pus corpuscles. The question arose, What was the difference between a mucous corpuscle and a pus corpuscle? The answer was, that the mucous corpuscles were nothing but the protoplasm of the epithelial cells themselves, and were pale and *finely* granular bodies, while the pus corpuscles were *coarsely* granular bodies.

Dr. Heitzman believed that Cohnheim was mistaken when he stated that all pus corpuscles were migrated white blood corpuscles, for the formation of pus corpuscles could be traced to the firmer tissue itself. No one would deny that a certain number of pus corpuscles were migrated white blood corpuscles, but he did not believe that all of them were produced in that manner.

The lungs normally contained a certain amount of pigment, therefore when pus-cells found in the sputa contained pigment granules, it was an indication as to where the pus-cells came from. The presence of elastic fibres on the sputa indicated that there was positive destruction of lung-tissue. He might not be able to say what had destroyed the lung tissue, but it could be said with great certainty, if with the fibres there were found certain protoplasmic bodies, that the destruction was due to the formation of a cavity.

Reference was then made to cases in which he had been able to make a diagnosis of serious lung disease by examination of sputa before any evidence of such disease was given by physical signs.

MICROSCOPICAL EXAMINATION OF THE FÆCES

might furnish valuable aid in diagnosis. We could readily tell whether we had to deal with a shallow inflammatory process, like dysentery, or a more severe disease called ulcerative proctitis; for if shreds of connective tissue were found it indicated the existence of the severe inflammatory process.

Reference was made to one case in which diagnosis of hysteria was made, by finding that a peculiar material, which the patient passed in large quantity, was composed of vegetable remnants unlikely to be taken as an article of food.

In the fourth place Dr. Heitzman spoke of

THE COMPARISON OF THE DIFFERENT TAPPED FLUIDS WITH REGARD TO THEIR FORMED ELEMENTS AND THEIR DIAGNOSTIC VALUE.

In *ascites* the fluid contained, besides a varying quantity of albumen, a varying number of endothelial cells from the peritoneum, and invariably a greater or less number of pus corpuscles. The presence of endothelial cells was a diagnostic sign of ascites. In fluid drawn from the *cyst of the broad ligament* nothing of the kind could be seen. He thought it well to be careful with reference to regarding Drysdale's corpuscle as positive evidence of the existence of an ovarian tumor.

THE DIAGNOSIS OF TUMORS WITH THE AID OF THE MICROSCOPE

was the fifth topic in the Doctor's discourse. There was no doubt the science of microscopy had advanced so far that we were able to tell positively what kind of a tumor we had to deal with. If a few points were kept in mind we could easily determine whether we had to deal with a benign or with a malignant growth. The key to diagnosis was chiefly in the basis substance, whether fibrous, myxomatous, cartilaginous, or bony. The more of the basis substance present the more certain was the tumor benign; the less the basis substance the surer was the tumor malignant. Malignant tumors were of two kinds: 1. The kind belonging altogether to the connective tissue series, and termed sarcoma; and 2, the kind belonging to epithelial formations, and termed cancer. Further, if we saw slight basis substance without epithelial elements, and without alveolar arrangement, we could say that it was a sarcoma; while if we saw epithelia arranged in alveoli, without respect to size or shape, we made the diagnosis of cancer. In the latter case, also, a great deal could always be determined by examination of the connective tissue outside of the epithelium. The more abundant the connective tissue

about the epithelial nests the less malignant was the cancer, while the more numerous the epithelia were, and the less abundant the connective tissue, the more certain we were that the cancer was a malignant one.

Again, there were present in the connective tissue itself a varying number of peculiar shining globular elements which, by recent examiners, had been considered as the product of a kind of inflammatory reaction from irritation of the epithelium. The more crowded those corpuscles were, the worse the cancerous tumor. If we wished to know whether or not the tumor had been thoroughly extirpated, it should be examined about its boundary. If the connective tissue was found provided with only a small number of inflammatory elements so-called, we might be sure that the cancer would return within a very short period of time.

The sixth topic of Dr. Heitzman's lecture was

THE AID FURNISHED BY PUS-CORPUSCLES AND COLORLESS BLOOD-CORPUSCLES IN JUDGING OF THE GENERAL CONSTITUTION — DIAGNOSIS AND PROGNOSIS BASED UPON THE ANATOMY OF PROTOPLASM.

Under this head the lecturer refers to the discovery which he made five years ago, regarding the anatomy of protoplasm, and its presentation before the Society three and two years ago. (See MEDICAL RECORD, Vol XI., p. 322, and Vol. XII., p. 94.) He then claimed that protoplasm of any description invariably contained a net-work of threads and granules, that held in its meshes a fluid, and that the threads and the granules constituted the living matter. Today, more than a dozen of the best microscopists abroad had accepted his discovery, although it had not been recognized in this country. That the reticulum was present, no one had a right to doubt; but that the threads and granules were living matter had as yet not been acknowledged. That it was living matter he had to prove, which he felt himself able to do by the recognition of two well-established facts.

The first property attributed to living matter was *motion;* and the second, *capacity for reproduction of its kind.*

As evidence that this matter was living, was the motion which could be seen in it, and it was enough to establish its reproductive power to know that the granules increased in size and number during the inflammatory process. Transferring the idea to the study of the human body, Dr. Heitzman reasoned that these corpuscles should contain more living matter in the healthy and strong individual than in the broken-down and scrofulous person.

Acting upon that supposition, he began, three years ago, to study pus-corpuscles in the urine in connection with clinical histories, and reached the conclusion that the constitution of the person from whom they came could be determined in that manner. Having settled the question that pus-corpuscles from a healthy person contained an abundance of living matter, an abundance of granules, while those from a debilitated person contained granules which were very small and a very marked net-work, it occurred to him that perhaps by examination of the colorless blood-corpuscles he would be able to tell directly what the constitution of the individual was from whom the blood was taken. So it was, and he had found that when the colorless blood-corpuscles, examined with moderately high power (800 to 1,000 diameters), were found to contain an abundance of granules, it was evidence of a first-class constitution; on the other hand, if only fine granules were seen, and the entire body of the corpuscle was pale, it was evidence of a poor constitution. He had very often noticed that the number of white blood-corpuscles was considerably increased after a single sleepless night, so much so, that it might be determined whether a man had been kept from his rest or not, by examination of his blood. It could also be determined whether a man was to have acute diseases, or whether he was to suffer from the slow processes of disease incident to a strumous diathesis.

These facts being determined, they might exert a very great influence upon the entire question of life assurance.

Not only that, but they might exert an important influence upon the question of marriage.

To know something of the general condition of our patient was very important. If that could be determined by an examination of a drop of his blood, we had learned much with regard to his future welfare, and a new field was opened worthy of the investigation and study of every physician.

The subject being before the Society for discussion,

DR. GILLETTE remarked, with reference to the statement made by Dr. Heitzman, that hyaline casts could not occur in the urine unless a grave inflammatory process was behind them, that he had not been led to attach so much importance to their presence in the urine. He spoke especially with reference to life assurance examinations, and formerly he thought the mere presence of hyaline casts in the urine was sufficient reason for rejecting the applicant. But he had watched several such cases for four years, and no evidence whatever had developed to suggest that the casts had any clinical significance.

He further referred to Charcot, Richardson, Dickinson, and Ziemssen, who did not attach that importance to hyaline casts in the urine that had been given to them by Dr. Heitzman.

DR. HEITZMAN remarked it was contrary to his own experience that hyaline casts existed in the urine without being due to serious inflammatory process in the kidney.

DR. H. G. PIFFARD remarked that since Dr. Heitzman announced the peculiar construction of protoplasmic cells many had witnessed its demonstration in his laboratory, and had it been referred to a committee of investigation, doubtless more would have been satisfied of the truth of the discovery.

With reference to other matters in the lecture, much that had been said could be readily accepted.

Some points, however, were new, and if true, were of the utmost importance; for example, the assertion that the character of the constitution of a person could be determined by the appearance of the white blood-corpuscles.

With Dr. Heitzman's consent, he moved that a committee of three be appointed by the President to investigate the subject and report to the Society. The motion was adopted.

After remarks by Drs. Elsberg, Weber, and Sell, Dr. J. C. Peters read a memorial on the late Dr. Snelling.

The Society then adjourned.

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A DIAMOND WEDDING was recently celebrated in the little town of Kollmar, in Holstein, to commemorate the seventy-fifth anniversary of the marriage of two surviving spouses. It appears that two more celebrations of the same sort are expected to take place shortly in the same town. There have been ten diamond weddings there during the last fourteen years.

# Correspondence.

## THE VITAL STATISTICS OF NEW YORK.

DEATHS *vs.* BIRTHS.

To the Editor of The Medical Record.

Sir:—If the secular press be correct in its summary of the vital statistics of New York for the past year, it reveals a state of affairs worse even than that which has lately called the sympathizing attention of political economists to the alleged decadence of France. 25,729 births against 27,005 deaths leaves an ominous balance on the debit side of the municipal account, even when liberal allowance is made for neglect in recording nativities. And this excess of death-rate over birth-rate has extended through a number of years past, according to the official reports of the Health Department.

It would be difficult to ascertain the number of immigrants who become permanent residents of the city (unless, perhaps, they could be roughly estimated from the naturalization records); but it would be interesting to learn from the Board of Health whether it entertains any theory to explain the increase of population; and also whether, supposing its records to be defective and misleading, despite its legal power to enforce registration, it be worth while to publish a fragmentary list of births which only serves to invalidate all statistical calculations.

I am, sir, yours, etc.,

A Perplexed Sanitarian.

## OXALATE OF CERIUM IN CHRONIC COUGH.

To the Editor of The Medical Record.

Sir:—I have noticed in several of the current medical periodicals, testimonials as to the efficacy of oxalate of cerium in chronic coughs. I desire, through the medium of your valuable journal, briefly to add my own experience in its use.

My attention was first called to this drug, in the capacity already mentioned, something over a year ago, since which time I have used it in a goodly number of instances, until I have come to regard it as one of the principal remedies in the treatment of this distressing malady.

Coughs resulting from chronic bronchitis, phthisis, and chronic laryngitis, have promptly yielded to this remedy in my hands, after both the internal and external administration of other drugs had signally failed. In giving it to adults, in only one instance have I ever experienced any ill-effects from its use. This was a case very similar to the one reported in the Record for December 28, 1878, by Dr. La Roe, of Greenpoint, L. I. On this occasion I used seven grains at first, which produced the narcotic effect he speaks of as following the taking of five grains. I then reduced the quantity to five grains, which quieted the cough without the deleterious effects first produced. When I first began using oxalate of cerium, I produced decided narcotic effects in two instances from the administration of five grains to children of from ten to thirteen years of age.

In prescribing this drug, I invariably direct it to be taken half an hour before rising in the morning; and I may say that, although I have used it *frequently*, I have in only one or two instances been disappointed in the effects produced. I give five grains to adults, and diminish the dose, when treating children, in proper ratio, according to age.

Frank Allport, M.D.

Sycamore, Illinois.

## A NOVEL VIEW OF THE CREMATION QUESTION.

To the Editor of The Medical Record.

Dear Sir:—I noticed in No. 422 of your valuable journal a reference to Dr. Gross's views on cremation, as given by that eminent surgeon to a representative of the *Philadelphia Press*. The subject is certainly one of great importance, and the hygienic advantages to be derived from the abolition of interment are certainly great, although perhaps liable to be overrated. But, allow me to speak of another relation which, it seems to me, does not receive due consideration by the medical profession. I am referring to the chemical aspect of this question of cremation.

Taking for granted—for my purpose—that interment is a method of disposing of the dead both disgusting to our educated feeling and dangerous to our health, there remains to be decided another question, viz., whether cremation is really the most economical way of destroying dead bodies. And here chemistry comes in and answers negatively. For cremation could never be introduced into civilized communities without arrangements being made in the various furnaces constructed to burn up all the smoke produced by the combustion of the human body. And this includes the destruction of a constituent of our own as well as of all other vegetable and animal bodies, the supply of which is limited—at least as far as we know. This constituent is *ammonia*. In this combination the various nitrogenous bodies that play such an important part in vegetable and animal life are introduced into the vital circulation, and are also eliminated from it in the same shape. It has been Liebig's greatest achievement to point out and trace through all its stages the circulation of nitrogen and its compounds. The chapters: "*Der Ursprung und die Assimilation des Stickstoffes*" and "*Die Quellen des Ammoniaks und der Salpetersäure*," in his immortal work, "*Die Chemie in ihrer Anwendung auf Agricultur und Physiologie*," are classical, and leave no doubt in the mind of the reader as to the true sources, distribution, and final condition of ammonia and its allies.

Chemistry, therefore, does rightfully claim that not only must cremation of necessity waste and destroy an immense bulk of organized material which is thus abstracted from that portion of the earth's capital that is capable of vitalization, but it also irreparably wastes and destroys ammonia and kindred nitrogenous substances, the sources of which are not as yet fully understood, and the supply of which, for aught we know, is undoubtedly limited.

Ammonia, nitric acid, and principally nitrite of ammonia, are formed from atmospheric air, in consequence of a certain amount of commotion produced in our atmosphere, either mechanically or by some electric or galvanic discharge. *This is the only source of ammonia positively known to us.* Rain and thunderstorms therefore supply to us a chemical combination of elements, the importance of which is recognized more and more every day.

And here we meet with certain public improvements (?), the establishment of which is due to just such misapplied hygiene as may at any time give us the

improvement (?) of cremation. For, by our great system of sewers, that cost millions upon millions of dollars, we are diligently and carefully throwing away, by leading them into the great rivers and the sea, just those valuable nitrogen constituents which we are importing with great cost, under the fashionable form of "guano."

The first one to raise this valid objection to cremation with combustion of smoke was Friedrich Mohr,* the eminent chemist, the greatest living since Liebig died. His warning should be heeded before it is too late; and, although we shall not live to see the ammonia-famine, it will surely come, if the present or the next generation does not reform.

Instead of supplanting interment by cremation, the most rational way would be to cover up all the dead bodies of men and animals alike with quick-lime, and thus preserve their ammonia-compounds for further circulation by using them as fertilizers.

Whether this way of disposing of our dead would meet with the sentimental approbation of humanity in general is, of course, rather doubtful. Very probably only necessity, *i. e.*, the instinct of self-preservation, will at some future time, quite remote from the present, force men to the realization of such extreme measures.

This is the conviction of your correspondent,

GEO. W. RACHEL, M.D.

53 E. 3D ST., N. Y.

## TINCTURES FROM FLUID EXTRACTS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Is there not a chance for serious accident in dispensing, indiscriminately, tinctures made from fluid extracts and from crude herbs? For instance, a druggist has been furnishing a physician on prescription a tincture of digitalis from the fluid extract, the dose of which, according to the formula given by the manufacturer of the fluid extract, is forty-five to ninety drops, and the druggist should fill the prescription with a tincture made from the herb according to the U. S. D., the dose of which is ten to twenty drops. This would give the tincture from the herb in forty-five to ninety drop doses.

Cannot some step be taken to regulate fluid extracts so as the tinctures made from them will correspond in dose to those made from the crude herbs.

H. PALESTINE, Texas.

[Fluid extracts are all supposed to be of the same strength, one minim corresponding to one grain of the crude material. They of course differ in actual strength depending on the *quality* of the herb employed by different manufacturers. Perhaps the maker of the one referred to was aware that his own production was of inferior quality and knew that it must be given in larger doses to produce the desired effect; besides, the larger the dose, the sooner the bottle will be finished and another one required. We do not know that there is any objection to making tinctures from fluid extracts, but the practice of some apothecaries of dispensing so-called "infusions" made from fluid extracts is wrong, and should be stopped. There is a very decided difference in the *quality* of effect between the watery and alcoholic preparations of digitalis and some other drugs. This pernicious practice is encouraged by the labels which some fluid-extract makers put on their bottles.—ED.]

* In the scientific monthly, "Gaea," XI., p. 526.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 5 to January 11, 1879.*

SEMIG, B. G., 1st Lieut. and Asst. Surgeon. Now on leave of absence, to report in person to the Com'd'g General, Dept. of the South, for assignment to duty. S. O. 7, A. G. O., January 9, 1879.

ROSSON, R. L., 1st Lieut. and Asst. Surgeon. Assigned to duty at Camp Apache, A. T. S. O. 149, Dept. of Arizona, December 23, 1878.

GRAY, C. C., Major and Surgeon. Relieved from duty in Dept. of the Missouri, to proceed to his home, Chester, N. Y., and there await further orders. S. O. 7, A. G. O., January 9, 1879.

## BOOKS AND PAMPHLETS RECEIVED.

AN ATLAS OF HUMAN ANATOMY, Etc., with Explanatory Text. By RICKMAN JOHN GODLEE, M.S., F.R.C.S., Fellow of University College. Philadelphia: Lindsay & Blakiston. 1878.

TRANSACTIONS AMERICAN OTOLOGICAL SOCIETY, Eleventh Annual Meeting. Boston: Houghton, Osgood & Co. 1878.

ELEMENTS OF COMPARATIVE ANATOMY. By CARL GEGENBAUR, Professor of Anatomy and Director of Anatomical Institute at Heidelberg. Translated by F. Jeffrey Bell, B.A., and E. Ray Lankester, M.A., F.R.S. London: Macmillan & Co. 1878.

MEDICAL CHEMISTRY, including the Outlines of Organic and Physiological Chemistry, etc. By C. GILBERT WHEELER, Prof. Chemistry Univ. Chicago. Philadelphia: Lindsay & Blakiston. 1878.

# Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending January 11, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| Jan. 4, 1879.. | 0 | 11 | 224 | 2 | 2 | 73 | 0 | 0 |
| Jan. 11, 1879. | 0 | 8 | 274 | 1 | 2 | 65 | 0 | 0 |

MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK.—Dr. A. L. Ranney has been elected Adjunct Professor of Anatomy for this institution.

NEW YORK PATHOLOGICAL SOCIETY.—The following officers have been elected for the ensuing year: President, Dr. E. L. Keyes; Vice-president, Dr. Joseph W. Howe; Secretary, Dr. Geo. F. Shrady; Treasurer, Dr. John H. Hinton, and Editor of Transactions, Dr. John C. Peters.

THE PHILADELPHIA SOCIETY FOR ORGANIZING CHARITABLE RELIEF AND SUPPRESSING MENDICANCY intend to extend the sphere of their usefulness so as

to supervise the dispensary patients. No dispensary physician will be allowed to treat a patient a second time, unless he brings with him a certificate from the ward superintendent of the Society to the effect that he is deserving of medical assistance.

A NEW CHAIR IN THE MEDICAL SCHOOL OF THE UNIVERSITY OF PENNSYLVANIA.—The trustees have just created a chair of "The Anatomy and Surgery of the Joints" in the Medical Department of the University of Pennsylvania. Among a number of candidates, Dr. Charles B. Naucrede, one of the physicians to the Episcopal Hospital, seems to be the one most likely to receive the appointment.

URGING THE METRIC SYSTEM.—The report made by representative Maish, from the Committee on Coinage, Weights and Measures, presents a condensed history of the metric system, and assumes that the first essential thing for the civilized world is to establish at this time a fixed and determined unit of international linear measurement. The committee earnestly recommends the early passage of the House bill introduced at the last session of this Congress to establish the metric system in the post-offices and custom-houses of the United States. The metric system has already been adopted, voluntarily, by the Bureau of Statistics, the Medical Purveyor's Office and Coast Survey, and in some of the bureaus of the Treasury Department computations are made according to this system.

PUBLIC HEALTH.—A special session of the Advisory and Executive Committees of the American Public Health Association was held on January 3d and 4th, at Washington. They advised that Congress create a National Provisional Commission, whose duties should be to investigate the late yellow-fever epidemic, and devise a plan for a national public health organization. The Committees enlarged upon the necessity of great care in the selection of this Provisional Commission, and recommend that the National Academy of Sciences be empowered to appoint its members, which they limit to seven or nine. The Committees also passed a resolution protesting against the passage of the Lamar bill now before Congress, and entitled "A Bill to establish a Department of Public Health." This was thought to give an unwarrantable concentration of power.

COOK COUNTY HOSPITAL passed into the hands of a new warden on the 1st of January. The air and the papers are full of the story of the mismanagement under the old regime. Doubtless there is some exaggeration in these reports, but the hospital under the former warden was bad enough. The management, it is claimed with some reason, was very weak, if not very corrupt and rotten. Nurses and other employees seemed to be responsible to no head, and to obey no authority. The expense to the public has been beyond all reason, and the institution has for a long time been outrageously inefficient. It is safe to say a thoroughly efficient warden might easily improve the sanitary condition of the hospital fifty per cent. over its average condition during the past year. The new warden, like a new broom, appears to be making a clean sweep. A marked change for the better is already noticeable; but the new incumbent has a very difficult task before him.

MEDICAL SOCIETIES OF CHICAGO.—A new medical society organized in a very quiet way, a few weeks ago, and called the Gynecological Society, has already given evidence of vigor and promise of usefulness. The new society is the third scientific medical society now in active operation in the city, the "Chicago Medical Society" being the oldest, and the "West Chicago Medical Society" being next in age. The "Chicago Society of Physicians and Surgeons," once a flourishing organization, has not been heard from for several months. It will probably not be revived.

AIKEN *vs.* STATE BOARD OF HEALTH.—The Appellate Court of Illinois has just confirmed the decision of the lower court in the matter of Dr. Aiken *vs.* The State Board of Health. This is one step farther in the legal journey toward the establishment of the right of the State Board to revoke a physician's license to practise on account of unprofessional conduct.

WHY THE METRIC SYSTEM MUST BE ADOPTED.—[In the course of a lecture delivered before the New York Academy of Sciences, to demonstrate that the metric system must be taught more through the senses than to the mind, Dr. E. Seguin shows some of the advantages physicians would derive from the use of this quantitative language in practice, and in recording observations.]

"Foremost in human interest is *the uniformity of weights* in prescriptions, which would prevent the grave or fatal results attending the composition abroad of medicines prescribed here. And *the uniformity of measures* which would give the possibility of writing observations uniform—that is to say comparable at sight—with those of other nations.

"Then comes the possibility of mathematically accounting for the vital functions intrusted to the physician, in health at first, during their waste in disease, and in the course of their recuperation under treatment; and to make these individual records serve as mathematical elements of true medical statistics.

"These records, and the following ones, could be rendered much more valuable by being made on *metric paper* (a paper water lined, one way with the millimeter, centimeter, and decimeter-line; and the other way with centimetric and decimetric water-lines only). I will name, among the applications of this paper to the precision of our art, the tracing of the curves of the diurnal and pathological variations of the temperature, pulse, and respiration; the figures furnished by the hæmatometers, spyrometer, dynamometer, various urinoscopes, etc.; the graphics of the myograph, of the sphygmograph, and of other self-graphing instruments; the drawings or photographs of the microscopic specimens, and other perishable or evanescent data, which lose part of their interest if their proportions have not been taken on an invariable scale.

"I can not omit the use of the metric paper-bands, on which, in important cases, must be telegraphed, from the bedside to the doctor's desk, the sudden break in the course of the vital functions, which foretells a crisis avertable only by telegraphic swiftness. Now that instruments of medical precision are invented as fast as the want of nicety in diagnosis demands them, nothing is more necessary than a mean of concentrating their data on the uniform, and all but uniformly accepted plans of the metric system, of the metric scales, and of the metric paper. The great founders of the first societies of 'medical observation,' longed in vain for such means of record of their admirable observations as are now within the grasp of the whole profession.

"Let us, therefore, follow Europe in the use of the metric system; but let us show European physicians the use of the 'metric plan' in medical observation, beating them on their own ground, literally with a piece of paper.

"Our mind has come to that, but not our routine and automatism. Most of our medical schools and hospital clinics teach by the old weights and measures; few physicians prescribe in the metric language, and the druggists who know better (not all, of course), smile and *put up* according to direction. The best surgeons import their instruments for no other superiority over our home manufactures than their metric scale. The Massachusetts, Pennsylvania, and New York State Medical Societies recommend the use of the metric system; the U. S. Medical Marine Service makes it official and obligatory; and the Secretary of the Navy sarcastically remarks, in his last report to Congress, that *this change has caused no evil results.* Could we not benignantly promise the same *results* to private initiative?"

RESUSCITATING THE APPARENTLY DROWNED.—Prof. Burt G. Wilder, M.D., of Ithaca, N. Y., writes: "May I ask the profession, through your columns, for information as to *resuscitating the apparently drowned?* I desire to have the history of any clear case, including the following points: The name of patient and his residence; the date, cause of submersion, time of submersion, interval between rescue and treatment, condition as to pulse, heart, and respiration; methods employed, duration of treatment and result, with name of physician or operator. For the history of such cases, or for references to published accounts of them, I shall be very much obliged."

TREATMENT OF DIPHTHERIA.—Dr. M. J. Gahan, of Grand Island, Nebraska, writes: "For the past four years we have had in this city, during the fall and winter months, exhibitions of diphtheria to more or less extent, and prevailing during last winter as an epidemic, and reading in your valuable journal during the last year various letters and advices on its treatment, I take the liberty of offering mine. When the case is taken, on the first formation of the membrane I found the following supporting treatment and local applications effective, viz.: Tinct. ferri chlo., ʒ i.; pot. chlo., ʒ ij.; aqua, ℥ vij.; this to be used as a gargle four or five times a day, and the use of the tinct. ferri chlo. from ten to twenty drop doses every two hours. I have used this for the last four years in over two hundred cases, and it has yet to fail me for the first time when the disease was taken at its onset."

THE MORTALITY LIST OF 1878 IN PHILADELPHIA.—During the last twelve months 15,743 persons have died in that city. The number was 16,003 in 1877; 18,892 in 1876, and 17,805 in 1875. Of those who have died this year, 7,959 were males and 7,784 females; 3,905 boys and 3,480 girls, and 8,358 adults and 7,385 minors. The number of colored persons who have died is 957, and the number of deaths in the Almshouse, 495. These figures are from the books of the Registrar of Births, Deaths, and Marriages.

TAPE-WORM IN A CHILD THREE YEARS OLD.—Dr. Charles H. Bailey, of Bloomfield, N. J., writes: "Some time since I noticed a case of tape-worm in a child of three years, reported in the RECORD. The rarity of the disease at that age made the case interesting. As few such cases are reported, I venture to send you the history of the following case; if thought worthy of a place in the RECORD, it is at your disposal.

*Case.*—Clara S., aged three years. Patient has been a healthy child, her only sickness having been malarial fever during the past summer. In the month of October her mother remarked paroxysm of crying at night, and brought her to me for treatment for worms. I gave her a dose of calomel and rhubarb, but with no success as regards her fancied trouble.

December 4th the father informed me that the child had passed pieces of a tape-worm. On visiting the family I was shown several pieces of a tænia solium. The child seemed perfectly well, plump and well nourished, and the only other symptom of disease was the continuance of the night-crying. The child was directed to be sent supperless to bed, and a liberal dose of castor oil given on retiring. In the morning breakfast was to be withheld, and the following given:

℞. Ol. felix mas.....4 grammes.
Syr. Tolutanum,
Mucil. G. acaciæ.....ää 30 "

M. Take half this mixture at one dose. In the evening of the following day the mother presented herself at my office with a quantity of tape-worm in a bottle. On careful measurement this measured *seventeen feet*, one unbroken section measuring thirteen feet. The head could not be found; the point of separation was at least well toward the head. No history of using raw or underdone meat could be obtained."

THE TRAINING OF NURSES.—The diet kitchen, and the lectures on nursing were first established in connection with the Philadelphia Woman's Hospital in the year 1872. The course of training extends over two years. The age for the pupils trained is from 21 to 45. The nurses of the Woman's Hospital are required to wear cotton gowns, no stuffed dresses being allowed when they are in service, to avoid the possibility of carrying about with them the seeds of contagious diseases. The first duty which is enforced upon them is strict obedience to the orders of the attending physician. In addition to this negative requirement, are the positive duties of registering the pulse, taking the temperature of the patient's body, etc. The most exact statement in writing is to be made of the patient's condition whenever required. In the diet kitchen the pupils are taught to prepare food for the sick.

The first general hospital in the city to open its wards to the pupils of the training school was the Philadelphia Hospital, in 1876. The nurses served there gratuitously for two years in exchange for the valuable opportunities offered in the range of cases.

This portion of the time of training is now passed in the Pennsylvania Hospital, where the pupils spend a year for practice in general surgery and medical dressing. The wards of the Orthopædic Hospital and Nervous Infirmary are also open to them. After this thorough hospital drill the pupils reserve the latter part of their term for private practice, and nurses may be obtained by any one upon application at the hospital.

The nurses sent out by the Woman's Hospital School for private practice carry with them a printed form of paper, upon which both the physician in charge and the patient or friends are requested to register whatever remarks or criticisms (confidential) may occur, and all these are taken into account in determining the grade of said nurses and their qualifications, as shown in practice. Prominent physicians in Philadelphia have shown their great interest in this school by delivering lectures in the Volunteer Course each spring, to the respective classes; and the graduated nurses find, on receiving their diplomas, their work ready for them at once under these physicians, or others who have the opportunity to observe their fitness as pupil nurses in the school.

# Original Communications.

## NERVOUS DISEASES CONNECTED WITH THE MALE GENITAL FUNCTION.

By GEORGE M. BEARD, M.D.,
NEW YORK.

### I.

Diseases of the male genital organs have both a medical and a surgical side. The surgical side, relating to inflammations, injuries, specific affections, and operative procedures of all kinds, is the exclusive province of treatises on surgery. The medical side, relating mainly to the nervous diseases and symptoms directly or indirectly connected with the reproductive function and organs, has thus far not been systematically studied by neurologists, while by surgical authorities it has been honored with only a partial and more or less unsatisfactory attention. The surgical writers have been the pioneers in observing the dependence of certain nervous maladies on genital disorders, and in recording their observations. On the whole, this fact is, perhaps, not entirely creditable to neurologists. The relation of the male genital function to the nervous system is intimate and complex, and is worthy of the best efforts of students of the nervous system.

Any one who is familiar with the literature of this branch of scientific inquiry, from the earlier periods down to the very latest and best surgical monographs in Germany, England, and this country, will allow that there has been a gradual tendency to refer, more and more, many of the morbid conditions of these parts to the nervous system; while, especially in German works on nervous diseases, there has been at the same time a tendency to study more and more closely the relation of this function as a causative factor in certain maladies of the brain and spinal cord.

There are, however, very many questions that are still open; many more that are regarded as matters of opinion only, and concerning which opinions are as numerous as those who write or lecture upon them; and not a few that science has passed utterly by. Some of these questions are of the very highest scientific and practical interest, and occupy the thoughts and attention of students and practitioners of medicine everywhere, and information in regard to them is earnestly welcomed, all the more because the inquirer is able to obtain so little assistance from medical literature or from the ordinary routine of medical instruction.

I purpose, in a short series of clinical papers, to attempt to answer some of these, so far as is possible to do so from my own personal observation and investigation in the study and treatment of cases of nervous diseases directly or indirectly connected with the genital function, presenting the cases, that may serve as suggestions for remarks, only in sufficient detail to make clear the special points involved.

In science the suggestion of a query that it is impossible to answer, or even an erroneous solution of a new problem, may sometimes be of service.

All purely surgical questions aside, there are quite a long series of diseases, symptoms, and hygienic problems involved in the relation of the genital function to the nervous system, in the study and solution of which every practitioner has a direct interest. Among these the following may be specified:

True spermatorrhœa, its nature and effects.

Involuntary emissions, when pathological.

Impotence, its varieties and treatment.

The relative harmfulness of natural and unnatural methods of producing the emission.

Sexual excess as a cause of nervous diseases.

Reflex nervous symptoms from morbid conditions of the glans and urethra.

The effect of nervous and other diseases on the genital function.

Case I.—A man in middle life, from a distant place in the country, consulted me for involuntary emissions of many years' duration, and associated with neurasthenia and mental depression. The patient would not tell me his name nor give me his address, but stated that he had been engaged in the occupation of teaching, but had alternated it with more or less labor on a farm, and distinctly declared that the nervous troubles coming from his sexual debility had, so to speak, dislocated his whole life, and compelled him to abandon, in whole or part, what he had desired to do. The patient presented such a picture of physical debility as is often described in the advertisements of charlatans, but which are generally supposed to have been made up for the purpose of terrifying young men. His eyes were red, swollen, and watery; the face was haggard and melancholy, and there was the characteristic and almost diagnostic timidity. Memory, and the power of mental concentration, had been seriously impaired. The patient stated that the semen came away with the urine. On this point I was doubtful, but an examination made by Dr. Mittendorf fully established the claim.

The habit of masturbation, which had been faithfully followed in early youth, had been discontinued, according to the patient's statement; but the effects, true spermatorrhœa and neurasthenia, remained.

In regard to the results of the treatment advised, no information has been received.

This case confirms, so far as a single case can, the familiar but questioned claim that spermatozoa may flow away with the urine. In short, it was a case of true spermatorrhœa—a running away of the seminal fluid independent of any natural or unnatural excitement or of any irritation. Such cases are not very common. Again and again have I had the urine of patients afflicted with involuntary emissions examined for the purpose of testing this very point, and thus far only two cases of real spermatorrhœa have been found. All physicians know that, by the law of coincidences, a number of peculiar cases of disease may come together or in quick succession, and it is not impossible that a number of these cases might follow one another, and be at one time under the care of some physician; but, nevertheless, they are, comparatively speaking, infrequent.

Whether there is anything more than a relaxed, or, perhaps, passively congested state of the urethra at the mouths of the ejaculatory ducts, may be well doubted. In other words, the full history of such cases indicates a nervous more than an inflammatory condition. It is for this reason that the caustic treatment of Lallemand has been mostly abandoned. This case also demonstrates that the evil effects of the early habit of masturbation may, in some cases, be felt in maturity, and blast the whole life.

This is not a frequent result of this habit. It is but rarely that a case so striking as this is seen; but the possibility that such permanent results may follow the unnatural excesses of youth is of interest, scientifically and practically, and should be understood by the profession.

The effects of masturbation on the nervous system, severe as they are, do not, as a rule, remain through early and late manhood. They are functional more than organic, and disappear soon after the breaking up of the habit, or, at least, after marriage.

There is a disposition among patients to attribute all their nervous woes to their early indulgences, even when there is no clear proof of any connection between them. It is probable that the vast majority of those who commit excesses of this kind recover entirely, or almost so, provided they begin, within a reasonable time, to lead a natural life, either with or without marriage. The statistics of insane asylums in regard to this, as in regard to most of the accredited causes of insanity, are of little worth, since secondary causes are so often confounded with primary causes, and masturbation, which may be one of the *effects* of insanity, has often been noted as the exclusive cause. Violent masturbation is one of the symptoms of insanity, and when a patient is brought to an asylum with this habit firmly fixed upon him, it is a natural, but not always a just conclusion, that the insanity is a *result* of the habit.

The capacity of the human system for bearing and for recovering from the temporary evil effects of sexual excesses in youth is one of the most interesting facts in this part of physiology. Very few nervous patients, whether suffering from organic or functional disorder, but on close cross-examination confess to early excesses; but to assume, therefrom, as many German writers have done, that such excesses have always caused the nervous disease, is most unjust.

Case II.—During the past year I was consulted by a gentleman of education, scientific attainments, and excellent good sense, for true spermatorrhœa of many years' standing, brought on, as such cases usually are, by masturbation commenced in very early youth. The patient was thirty-six years of age, and had not practised the habit with any regularity for eleven years. With nearly every stool semen was discharged, as microscopic examination proved. The patient, unlike most of these cases, was not at all hypochondriacal, but considered his symptoms in a truly philosophic spirit. He was, however, like the majority of such cases, a sufferer from neurasthenia—a disease of the nervous system which I have elsewhere defined and described in detail. The special symptoms of neurasthenia, of which he complained, were insomnia, nervous dyspepsia, asthenopia, mental and physical debility. The intimate and direct dependence of the weakness of the eyes on excitation of the genital function was in this case illustrated most remarkably. He was sufficiently intimate with a young lady to sometimes embrace and dally with her; and a number of times these dalliances led to an orgasm with ejaculation of semen. For a few hours after these ejaculations there would be a feeling of great and most satisfactory relief; but the next day there would always be a peculiar lassitude of the head and body, with nervous trepidation in the hypogastric region, annoying wakefulness at night, and exacerbation of the irritability of the eyes; in the patient's own language, "every hour of sexual excitement has reverberated on my eyes."

The question in which this patient was specially interested was whether he could get married; whether an engagement that he had formed must be broken off; and he was desirous to learn whether there was any difference in the effect on the nervous system between ordinary, normal coitus and the ejaculation produced by simple dalliance. An able and eminent physician whom he had consulted had positively assured him that marriage would cure him. My advice was to get married, but to first tone up his nervous system by various sedative and strengthening treatment, continued for a number of months, and when he got married to be very moderate in sexual indulgence.

The patient followed half of my advice, but not the other half; he married at once or very soon, and without taking any tonic treatment. It should be noted that one reason why he did not take the course of treatment indicated, was that he was abnormally susceptible to tonics, and indeed to medicines of all kinds; this was, in fact, one of the symptoms of his neurasthenia.

A few weeks after marriage the patient came to my office and reported that normal sexual intercourse was even more injurious to him than the orgasms of dalliances, and that even one coitus a week he could not bear, and he politely intimated that I had given him unwise advice. In reply, I reproved him for following only part of the advice given, and suggested that he at once begin taking the sedative and tonic treatment. The internal use of ergotin, belladonna, and bromide of camphor, the systematic use of the cooling catheter and cooling rectal sound to act on the irritable prostate, were advised, while living platonically, or almost so, until he became stronger.

This case is instructive and suggestive in many directions. First of all it raises the query, concerning which there has been much assumption without careful analysis or clear demonstration why and to what extent unnatural methods of producing the sexual orgasm differ from the normal coitus.

The ejaculation produced by normal sexual intercourse is the resultant of these six factors:

1. Friction.
2. Pressure.
3. Warmth.
4. Moisture.
5. Suction in slight degree.
6 Mental influence.

The first peculiarity of the various unnatural methods is, that they throw the burden of the excitation on some one or two, or, at least, a part only of these six factors, compelling the mind, or friction, or pressure alone, or together, to bring on the orgasm.

In the unnatural methods the mental influence is relatively too strong; there is too much of the subjective. It is well established that long and frequent dwelling upon sexual matters without any external, objective irritation whatever, is very harmful to the nervous system.

In the case here narrated the ejaculation was produced mainly by mental influence, though combined with pressure and possibly friction, and the process was undoubtedly much more prolonged than a normal coitus.

Secondly.—Another fact with regard to the unnatural methods is that they are more prolonged, thus making severer drafts on the nerve-force.

Thirdly.—The unnatural methods are carried out more frequently than the natural one; they can be done at almost any time, and do not, like the natural coitus, require the presence and consent of another party.

Fourthly.—The unnatural methods are often begun very early in life before coitus would be even attempted.

In several of my cases the habit of masturbation was taught in childhood by nurses or servant girls; and in all or nearly all the cases of sexual or general debility, induced by masturbation, that have been un-

der my care, the habit *was formed either before puberty or just at puberty—certainly much earlier than sexual intercourse is expected.*

It may properly be doubted whether the habit of masturbation, commenced at the age of twenty and practised only about as frequently as one would indulge in coitus, would lead to very disastrous results, at least to such melancholy symptoms as are represented in the above cases.

When we consider the universality of the habit of masturbation, the wonder is not that there is so much but so little of injury resulting from it. There is a prevalent belief that this vice is on the increase, and that it is peculiar to civilization. The probability is, rather, that it is relatively diminishing. There is evidence that it is practised far more in barbarous and semi-civilized people than among the highly civilized. We notice its effects more in modern times and in a high civilization, because our nervous, sensitive, impressible organizations cannot so well bear abuse of any kind. A degree of self-abuse that on the American constitution, as it was fifty years ago, would have had no effect sufficiently perceptible to attract attention, now induces an immense array of symptoms of neurasthenia that drive the sufferer in despair to the physician's office, or more frequently to the writings of charlatans. Some of these cases, no doubt, bring on or intensify their troubles by reading and worrying about them; but that cannot be said of all; it cannot be said of the case noted above.

The nervous disease, inebriety, illustrates the same principle. During the past half century the vice of excessive drinking has greatly declined among the better classes of this country; but, at the same time, the disease, inebriety, has been perceptibly on the increase, for the reason that the nervous temperament of the modern American will not bear free indulgence in alcohol.

This case also shows that it is possible for one to be in apparent health, able to engage in active duties, and yet be so nervously susceptible that even occasional sexual intercourse is injurious. If this man indulged but once a week he suffered from wakefulness and other symptoms of functional nerve disorder. This observation is instructive as indicating a possible cause of failure of our remedies in some instances.

That this peculiar susceptibility is not confined to cases of spermatorrhœa is proved by the following case:

Case III.—A physician of middle life complained, among other symptoms of nervous exhaustion, of a special type of agoraphobia; he could not go any distance from his office without suffering, and the farther he was from his office the greater his distress. There was headache, and also there were various head symptoms; but the appetite was excellent and the muscular strength was equal to the average of men of his age and size. When requested to visit a patient he might be found at work in his garden, and yet unable to respond to the call for the one reason that he could not go any considerable distance from his home.

Under various treatment, including general faradization, counter-irritation at the nape of the neck, and internal medication, he so far improved that he could attend to his profession, although the relief is not perfect and he still takes treatment.

The point in the case of chief interest just here is, that after long and careful observation he concluded that even occasional sexual intercourse was harmful to him; and what is of especial interest, is the fact that the injurious effect was not felt until the *second day after* indulgence.

The question whether agoraphobia and allied nervous affections are not pretty directly under the influence of the genital system is suggested by cases like the above. One fact, according to my own observation, is quite clear; namely, that all maladies of this class appear almost exclusively during the period of greatest sexual activity—between the ages of twenty and fifty—very rarely before fifteen or after fifty-five or sixty. Childhood and old age have diseases enough, and diseases of debility and exhaustion; but they do not have the special and peculiar forms or manifestations of exhaustion known as agoraphobia, spinal irritation, cerebral irritation, and hysteria. Sick headache—a type of this family of disease—does not usually appear before puberty, although I have known exceptions to this rule, and generally disappears between forty-five and sixty, as all students of this malady well know. It is quite possible that simple activity, or a condition of *readiness for activity* of the genital organs, without abuse in any form, may, by reflex action, excite various nervous symptoms and disorders which disappear as the genital activity declines. Cases of hysterical trance, like those of Mollie Fancher, usually (I will not say always) begin and end during the period of sexual activity.

Case. IV.—A man somewhat under middle life, who had been very active in his profession, was prostrated with a powerful array of nervous symptoms, in which the sexual organs shared. There was increase of desire without increase of capacity. During the night there would be persistent erections, which were followed by pain in the region of the testicle and bladder.

Although this patient had usually a good appetite, and was able at times to go out and attend to business; and when unable to leave the house or even the bed he could, and did, carry on important affairs by dictation; yet during all this period he could not indulge in coitus without suffering terrible prostration and palpitations. For that reason he habitually abstained.

In this case there was no evidence that sexual excess had anything to do with the nervous symptoms; but when in that exhausted state, sexual excitement seemed to be injurious. This was not a temporary, but a long-standing condition. I have just been consulted by a fourth case—the details of which will be subsequently given—where normal sexual intercourse even but once a week is followed by insomnia and nervousness.

In an interesting paper read before the Academy of Medicine, February, 1874, Dr. Otis reports a number of cases where urethral contractions, congenital or acquired, were the starting-points of a variety of morbid nervous phenomena, such as discomfort in the perineum, involuntary emissions, frequent micturition, pains in the back, testicles, groins, and thighs, and a feeling of wetness at the glans penis, and so forth.

Some of these observations I have been able to confirm. I have known a very slight and temporary irritation of the anterior portion of the urethra to cause frequent sensations along the inner part of the thighs, as though of dropping water—indeed, quite the same feeling that would be experienced if drops of cold water fell from a moderate height on the skin; and it would appear that these abnormal feelings may be excited not only by the few drops of urine retained behind the stricture, as Dr. Otis suggests, but by a mere irritation, without any retention or interference with the flow of urine.

In this line is the painful, though usually temporary but sometimes most distressing, pain in the perineum

that follows sexual intercourse or the act of defecation. A medical gentleman who once consulted me in regard to this symptom, said that it was at times quite hard to endure. It seems, as a rule, to arise only when there has been excess, or when the act is forced by unnatural methods; but this rule is not without exceptions; in a sensitive organization it may appear after ordinary indulgence or an easy defecation.

Diseases of the urethra may be effects as well as causes of disease in remote parts of the body. Thus, Dr. Lewis Fisher, of this city, has communicated to me the facts in regard to a case of obstinate urethral discharge which resisted all treatment, until at last he succeeded by a mechanical appliance contrived for the relief of the ligaments at the bottom of the feet; the ligaments had been strained in long marching.

The phenomena of reflex action in the causation and cure of disease, much as they have been studied, are yet far from receiving the attention that they merit, not only as scientific curiosities, but as practical aids in the diagnosis and treatment of nervous diseases. Pain of a persistent character in the back of the neck and head I have known to disappear on the cure of piles; dyspepsia, as all know, often affects every part of the body, except the stomach; headache in women, I have known to disappear instantly on faradization of the uterus; overuse of the eyes causes headache and neuralgia.

Case V.—At the present time I have under observation a young man who is the victim of insomnia, flushings of the face, with periods of depression. The only symptom of which he complained on consulting me at first, was insomnia; but on detailed examination it was soon found that involuntary emissions were annoying him, and that the long habit of masturbation was not fully overcome. On examining the parts it was found that the foreskin was so attached to the glans that only a very small orifice was left for the escape of the urine. It was and is a question whether the insomnia and other nerve-symptoms are produced by the masturbation and the involuntary emissions, or reflexly by the elongated foreskin. In order to settle this question, it was decided to first try only medical treatment; and he was placed under the external applications of faradic electricity, and, internally, conium and digitalis were prescribed, and also the zinc combination, which, in nervous disease, I am accustomed to make much use of, particularly where sedation is required—bromide of zinc, valarianate of zinc, oxide of zinc, equal parts, sometimes adding small doses of the phosphide of zinc, or belladonna, or physostigma, or ergot, increasing the quantity from time to time. Under this treatment, combined with attention to diet, he is already improving; but if the result is not perfect, an operation may well be advised; for the meatus is so small that urination is a tedious process, and the passage of a large sound is impossible. A constant life-long irritation of this kind might surely excite all the evils from which he suffers, as Dr. Sayre's cases demonstrate. In cases like this, reducing the quantity of food taken, and dispensing for a short period with animal food entirely, are valuable suggestions. In England great cures of incontinence of urine in children have been reported by the simple expedient of confining the patients to purely vegetable, fruit, and farinaceous diet, all meat being for the time entirely interdicted. I have now under care a patient who has been relieved of a very large number of distressing symptoms by reducing the quantity of his food about one-half, the quality remaining the same; the case is a chronic one, and he is yet far from health; but if like improvement had followed directly and demonstrably from any medication or any method of treatment, the result would have been regarded as brilliant.

Case VI.—Some years since, a man in middle life consulted me for a certain grade of impotence, which, as he had just married a second wife, was a cause of much alarm. He was, in all other respects, in absolute health; but the decline in sexual vigor was decided. Under a course of treatment, mainly electrical, he fully recovered, and I believe the results were permanent. There was no atrophy of the parts, as we sometimes see in cases of this kind; there was simply functional debility, the effect of previous overuse, combined with undue anxiety lest he might not be equal to the duties of his second marriage. The feature of chief interest in his case was the absence of all other morbid symptoms, either local or general—the coincidence of perfect health with weakness of the genital function. This is not an exceptional case: I have seen many such; but their significance is not thoroughly understood. A physician of very large experience, and of exceptional powers of observation, once remarked to me that he had always supposed that impotence was an effect or accompaniment of general debility. The truth in this matter would appear to be, that sexual excess or abuse in *strong* constitutions is likely to result in local genital debility; the same excess in weak constitutions is likely to result in *general* debility, or, at least, disorder in other and remote organs. The weak cannot abuse themselves long enough to bring on local trouble; they are warned by general nervous symptoms that compel them to desist; while the strong, having no such warnings, keep on in their excess until the genital function itself gives way; and when finally they come under treatment they are harder to cure than those of more sensitive organizations. When a sensitive, impressible, finely organized youth abuses himself sexually, the first effect and sign of that abuse is not in a weakness of the genital function, nor even in any disorder whatever of the genital apparatus, but in nervous symptoms in other parts of the body, as the head, heart, or eyes, or, very frequently, the stomach and spine. Thus, he becomes generally demoralized, while the special function, the abuse of which is the source of all his troubles, is unaffected, and, indeed, is so active as to be annoying.

This same generalization applies to all the functions of the body. Thus, the cramp of writers, musicians, and telegraphers occurs almost always, with an exception here and there, in persons of considerable, if not unusual strength; the very weakly and sensitive cannot write, or play, or telegraph long enough to bring on the local disorder, but give way first in other parts than those specially concerned in the acts of writing, playing, or sending messages. This is a partial explanation of the fact, that all these disorders are relatively more frequent in males than in females; and also of the fact, that out of more than one hundred cases that I have studied, in more or less detail, nearly all are persons of good, if not exceptional health, the cramp being their chief, and in many instances their only affection, and the very first evidence that anything was wrong with the system. Some of the cases of musician's cramp—piano-players, organists, and violinists—that I have lately seen, are magnificent specimens of physical development, with absolutely perfect health, and muscles almost as hard as iron; one can but envy them, and feel sometimes quite willing to endure their local debility for the sake of their general vigor. Of the few incurable cases of

impotence that I have seen, all were in persons of otherwise excellent or extraordinary health.

Impotence is a symptom of many gradations; that between the mildest and severest varieties, shade into each other, and are not always or usually precisely defined. Among the different forms that it assumes (aspermation excluded) are the following:

1. Slight decrease both of desire and power.

2. Slight decrease of power with increase of desire. This is analogous to dyspepsia with morbid appetite. This second form is sometimes attended with premature or too early emission.

3. Temporary and abnormal increase both of desire and power. This third form is one of the early symptoms of certain diseases of the spinal cord, sometimes of the brain also. It generally indicates the congestive stage of spinal disease.

4. Great diminution or utter loss both of desire and power. This latter form is the worst, least amenable to treatment, and it is the form that is often found in the strongest and hardiest constitutions.

## NASO-PHARYNGEAL CATARRH—VARIETIES, TREATMENT.*

By WM. F. DUNCAN, M.D.,

ASSISTANT TO THE BELLEVUE THROAT CLINIC, MEMBER OF THE N. Y. LARYNGOLOGICAL SOCIETY, ETC., ETC.

At this season of the year, catarrh being very prevalent, it has occurred to me that a few words to the profession about its treatment would not be amiss. It has been a matter of regret to all thoughtful medical men that the treatment of this common disease should be left almost entirely to quacks and irregular practitioners. Looking upon it from this stand-point, I desire to give my experience, in treating over a thousand cases of catarrh, to the profession, and to proclaim my conviction that it is in a very large majority of cases a curable disease. This belief arises from a very careful observation of these cases, continued until a cure was established. There is little that is new or mysterious in the treatment, which consists for the most part in the proper and thorough application of old and trusted remedies. The necessity for greater care in the examination and diagnosis is earnestly urged, and a failure to cure the patient may frequently be attributed to improper diagnosis of the form of the disease. The success of the treatment, in my hands, is due to the attention given to cleansing the mucous membrane before making any applications of medicine. It is the essential consideration in treating the mucous membrane of any part of the body, and, in the nasal cavities, which are small and easily blocked up with the excessive secretion of catarrh, its importance cannot be over-estimated. Inasmuch as the different varieties of catarrh require a distinct and separate line of treatment I have thought it advisable, even at the risk of presenting to my readers a good deal of matter with which they are already familiar, to describe in a brief form the clinical history of the disease and the diagnostic points of each form.

A description of a chronic catarrh of any mucous membrane will answer for that of nasal catarrh, which is a chronic inflammation marked by an afflux of blood to the parts, producing swelling, hypertrophy, or atrophy, and an alteration in the quantity or quality of the secreted mucus. It may follow immediately an acute attack, or, what is seen more frequently, will set in after repeated attacks of acute catarrh, the result of constantly catching cold. Continued exposure to irritating gases, or an atmosphere charged with dust, will produce it. Hence the followers of certain trades are often its victims, as stone-cutters, flower-makers, the employees in tobacco-factories, and so on. The use of tobacco undoubtedly occasionally produces post-nasal catarrh. Measles, scarlet-fever, diphtheria, and small-pox, leave the patients with chronic coryza, syphilis, scrofula, tuberculosis, malaria, and, in fact, any depressing disease places the system in a condition to get up a catarrh. Valvular disease of the heart and emphysema, from their interference with the circulation, may produce it. Also foreign bodies, such as cherry-pits, buttons, and even teeth, which have been introduced into the nostrils of children, unknown to the parents, and left there. Again, there are many persons, outside of any diathesis, who, seeming to enjoy perfect health in all other respects, have catarrh in the worst form. More catarrh probably occurs inland than on the sea-coast. Chronic catarrh may be divided, from location, into nasal and post-nasal. There may be a nasal catarrh limited to the nares proper, stopping at the posterior ends of the turbinate bones and septum; a post-nasal catarrh, confined to the vault of the pharynx; and finally, a catarrh of the whole tract, including the posterior wall of the lower pharynx, called naso-pharyngeal catarrh. Pathologically speaking, there are three varieties, with possibly a fourth: the simple, the hypertrophic, and the atrophic. The fourth division, simple ozæna, will be treated as a complication.

*Simple Catarrh.*—In a simple catarrh there is an inflammation of the mucous membrane, manifested by an alteration in the quantity of the secretion, which is more or less profuse, according to the severity of the disease. It is changed in quality, becoming thicker and yellow if the grade of inflammation be high. The afflux of blood to the parts deepens the color of the mucous membrane to a fiery red, and increases the nutrition of the glands so that they manufacture and pour out an abundance of mucus. The discharge is filled with mucus, muco-pus, mucous and pus corpuscles, half-formed cells, and broken, detached epithelium. The rhinoscope shows little swelling, but simply an intense redness, and the whole surface covered over with patches of stringy, whitish secretion. There is little or no pain, but an uneasy sensation and a tendency to frequently blow the nose and hawk to get rid of the excessive discharge. The most prominent and annoying symptom is the constant running from the nose. This disease may terminate spontaneously or be cured after the lapse of some weeks. If, however, it be allowed to continue for months it may run into the second or hypertrophic form, which is really another and advanced stage of the disease.

*Hypertrophic Catarrh.*—In this form the inflammatory action has produced such a hyper-nutrition that the cells form new hypertrophic tissue, which lies in great ridges in the vault, on the posterior ends of the turbinate bones and septum, almost blocking up the nares on the Eustachian tubes, and in the fossæ of Rosenmüller. The pharyngeal tonsil, a collection of follicular glands in the vault, similar in appearance and analogous in function to the tonsils of the fauces, is very much swollen. It is frequently the starting-point of a catarrh from which the disease works both forwards and backwards. Single enlarged follicles are seen in the vault, and in some cases on the rear of the septum. The whole appearance is that of an hypertrophied, boggy, inflamed

* Read before the N. W. Medical and Surgical Society.

mucous membrane. The same polypoid thickening of the anterior ends of the inferior and middle turbinate bones exists, as of the posterior, and upon looking into the anterior nares they appear like fleshy tumors. Strings and rolls of mucus are spread over the surface and bridge, the recesses and fissures. The symptoms are sufficiently aggravating. The secretion is enormously increased, yellowish-green in color and very sticky. Sometimes it is a reddish-brown, like the rust-colored sputa from pneumonia, the result of the coloring matter of the blood transuding through dilated blood-vessels. This is usually seen, when present, in the expectoration in the morning, of the matter collected behind the palate during the night. If the trouble be confined to the vault there is a sensation of a foreign body behind the palate, a stuffy sensation, and an almost uncontrollable desire to draw it down and hawk it up. Even after removing a roll of mucus the swelling of the parts preserves the disagreeable sensation, and the hawking is frequently repeated. This action causes hyperæmia and elongation of the uvula. There is ringing in the ears from invasion of the Eustachian tubes by the catarrh, or temporary deafness from plugs of mucus completely stopping their orifices. In some cases catarrh of the middle ear, with its serious consequences, results. The dropping of mucus into the throat during sleep occasions a coughing spell in the morning to remove it. Again it is swallowed, and impairs the digestion and appetite, and interferes with the general health. When the catarrh extends forward into the nares the swelling of the mucous membrane nearly closes them, interfering with nasal respiration, and causing the patient to breathe through the open mouth. This produces a peculiar expressionless countenance, which, taken with the alteration of the voice due to the absence of nasal sounds, is quite characteristic. It also causes snoring during sleep. The inflammation may extend into the nasal ducts, producing a watery discharge from the eyes into the frontal sinus, making a frontal headache, frequently a great annoyance, and into the antrum, and set up a severe neuralgia. Inspection of the post-pharyngeal wall shows a catarrhal pharyngitis, which has a follower in a hyperæmia of the laryngeal mucous membrane, producing a huskiness, and a desire to scrape the throat. It is quite distressing to public speakers and singers, whose voices improve with the cure of their catarrh. Dyspepsia frequently results from extension of the catarrh down the œsophagus. Also previously existing dyspepsia will aggravate the catarrh. The sense of smell may be greatly impaired, particularly when the catarrh is an old one, and involves the superior and middle turbinate bones, and the upper part of the septum, in whose mucous membrane reside the terminal olfactory nerves and cells. This form of catarrh may persist for months, and gradually glide into the atrophic or dry variety or stage.

*Atrophic Catarrh.*—This condition of atrophy may also develop from a simple catarrh. It is very common in people of middle and advanced age, and is rarely seen in young children. Probably the interstitial pressure on the afferent vessels, from the hypertrophic tissue in the sub-epithelial structure, long-continued, robs the parts of their necessary nutrition and atrophy sets in. The glands soon suffer, losing a part of their secreting cells, which results in a diminution of the secretion. The entrances to the glands becoming contracted, some are totally destroyed, while others preserve a few secreting cells which may be stimulated to activity by restoring their nutriment. The absorption of tissue frequently goes on to such an extent as to cause an actual increase in the size of the cavities.

Examination reveals the mucous membrane stretched tightly and smoothly over the bones and cartilages. It is perfectly dry, glazed, and shining. It is highly colored, owing to being so thin that the blood-vessels show through it very plainly. Sometimes the veins are engorged and varicose, and easily burst, making frequent slight hemorrhages, from which the blood dries in hard black crusts. The septum and turbinate bones may become as thin as the blade of a knife. Slight erosions now and then occur on the septum and anterior end of the inferior turbinate bones, from which the patient will pick hard crusts, which re-form every few days. Crusts and rolls of dried mucus are found in the nares, the result of the secretion of some part high up in the meatuses not yet atrophied. The nares being enlarged, quantities of dust are inhaled and spread out over the surface. Nearly always the posterior pharyngeal wall is in the same condition of atrophy as the parts above. It is called pharyngitis sicca. A combination of atrophy and hypertrophy may exist. There may be atrophy of the nares and hypertrophy of the vault, diminished secretion from one, and increased secretion from the other, or the reverse.

The different conditions require different treatment.

The subjective symptoms of dry catarrh are frontal headache, dryness of the nose and pharynx, decrease of the olfactory sense, absence of secretion, and the formation of hard dry crusts.

*Ozæna.*—One of the problems heretofore difficult of solution by the profession has been to determine what is ozæna; the popular impression being that it was a catarrh produced by syphilis, and that in some way syphilis was always answerable for it. With this idea in mind, specific remedies were invariably given, and with very varying results; some cases yielding to mercury and iodine, while others would grow worse under the same treatment. The former were undoubtedly syphilitic, while frequently the latter never had any venereal disease, and in them a great deal of mischief was caused and no relief granted. The matter is somewhat cleared up by dividing ozæna into simple ozæna and syphilitic ozæna, and hunting up the cause for the offensive odor which is characteristic of each. When syphilitic, it is the result of decomposed secretion from ulcerations, caries, and necrosis, either of which is always present. There are crusts and plugs and rolls of dead tissue filling up the nostrils, making a world of stink. The color of this offensive mass is dark gray. There is a vicious, sanious, and very copious discharge. The bones ulcerate, die, and are discharged piecemeal, causing fearful disfigurement, discomfort, and pain. This is the typical *ozæna* of the older writers. Simple ozæna, however, is very different. It occurs in patients who are otherwise perfectly healthy, is unaccompanied by any ulceration, and yet has just as offensive an odor as the syphilitic variety. The cause of this is probably such as was first suggested by my friend Dr. Bosworth. The disease resides in the accessory cavities of the nose—the frontal, sphenoidal, and maxillary sinuses, either of which has a capacity of at least two drachms—and these, opening by small outlets into the nares, retain the secretion poured out by their inflamed mucous membrane until it becomes decomposed, and enough has been produced to cause an overflow and a discharge of their contents. This offensive product oozes out and coats the nares with a thin, close-fitting, shining, yellowish-green pellicle, which can be seen upon examination. Its appearance

is quite characteristic, and can scarcely be mistaken. When it is carefully washed away so that none is visible on inspection, the odor disappears for several hours —a day or two—until more is discharged from the sinuses. It is difficult to detach it, as it clings very closely to the surface underneath, which, after its removal, appears very much reddened, but is clean, intact, and free from ulceration. In both varieties the patients are deprived of their sense of smell, and oftentimes, until informed by their friends, are unaware of the disgusting odor they emit.

Owing to lack of space, further reference to the complications of catarrh will be omitted.

*Treatment.*—The successful treatment of catarrh is largely confined to local applications, although the necessity for treating internally every disorder of the system is earnestly urged. Always in treating a diseased surface cleanliness is recognized as the chief requisite. This necessity, I repeat, is especially emphasized in dealing with a diseased mucous membrane, which must be thoroughly cleansed before the application of medicine is made. The mucus is often very tenacious, and secreted in cavities difficult of access, and yet it is possible to remove most of it by the methods described. The fact that alkaline solutions have a solvent effect on mucus is utilized, and all of the cleansing solutions contain some form of alkali; and, as in many cases there is a decomposition of the retained secretion, an antiseptic or disinfectant is used. Any combination of these two medicines, in weak solution, will answer, but that which seems to be as efficient as any, and in use at the clinic, is Dobell's solution.

℞. Acidi carbol..... 3 iss.
Sodii biboratis,
Sodii bicarb., āā..... 3 ij.
Glycerinæ..... f. ℥ ij.
Aquæ ad..... f. Oij.
M.

It is used with the atomizer, the post-pharyngeal syringe, and the nasal douche. The nasal douche of Thudichum has received too much praise and too much condemnation. It has a position in the armamenture worthy of a moment's consideration. When a catarrh is simple, there is nothing but an excess of secretion, and it is limited to the anterior nares, the use of the nasal douche is serviceable. It is valueless in any other case, however, because the solution washes only a limited surface. It enters one nostril, and, flowing upward around the rear of the septum, passes out of the other, cleansing only the inferior meatuses, and does not reach the whole of the vault. Again, it does not run with sufficient force to be of much value when there is a copious sticky secretion. There is some danger to be apprehended from the solution entering the Eustachian tubes, beyond the valvular portion, if used carelessly. This liability is reduced to a mere nothing if the patient be directed to hold the nose downwards, and while the current is passing through the nostrils to breathe through the open mouth. Also the vessel or reservoir must not be placed more than two feet above the level of the head. Common salt 3 i.—aq. Oi. may be of service. I have abandoned the douche because of its limited service, except when used with a curved nozzle, like the pipe of the post-pharyngeal syringe, which is passed behind the soft palate, and the solution runs out of both nostrils. I recommend this to be used by the patient at his home. The best method of using the cleansing solution is with the post-pharyngeal syringe, which is both safe and efficient. The solution can be driven with a great deal of force without danger of its entering the middle ear, because the direction of the stream and the Eustachian tubes is the same, downwards and forwards. It is to be entered flat on the tongue, which is depressed by its nozzle, its point introduced quickly behind the palate, and the contents suddenly and forcibly ejected by driving home the piston, and the syringe withdrawn. When there are crusts and plugs of mucus it may be necessary to repeat its use a dozen or more times at a sitting before they are washed away. Always examine to see that the surface is clean. When skilfully used it gives no pain, and is tolerated by any patient. Sometimes the sticky pellicle in ozæna will be loosened and drawn down from the upper meatuses until it reaches the anterior nares, where it will remain. It can be dislodged by throwing a stream with the same syringe, first into the nares in front, and then from behind the palate. The solution can also be used in a spray driven by compressed air, either by a hand-ball atomizer, or a pump and receiver. The last is very efficient when used with about thirty (30) pounds pressure, and will dislodge mucus from the superior meatuses, and even the entrance of the sinuses. It is better for children than the post-pharyngeal syringe. If with all these methods you fail to clear the nostrils, as you may do in syphilis, loosen the crusts with a probe and remove them with long slender forceps.

The next step in the treatment is the application of the medicines, adapted to the case, which is made in the form of spray, powder, or solution. The spray spreads out in every direction, and reaches cavities otherwise almost inaccessible, and is therefore the choice method. In simple catarrh the object in view is to reduce the amount of inflammation by the use of astringents. Select astringents of different strengths and kinds to suit each case. For a standard astringent, sulphate of zinc, gr. xv.—aq. ℥ j. is a good one. If the case be a mild one, do not use it stronger than three grains. If the catarrh be of long standing see the patient three times a week, and in the intervals let him use the cleansing solution home, with Delano's atomizer, or the post-pharyngeal douche. Ferric-alum, gr. v.—xx. to aq. ℥ j., is valuable when there is excess of secretion and little sensibility. Chlorate of potash, nitrate of silver, tannin and chloride of zinc may be used. Ring the changes on the astringents until a good one is found, and stick to it. When pain, lasting longer than half an hour, follows the use of the astringent, use a spray of U. S. solution of morphine. When there is hypertrophy to deal with, stronger applications are needed. Caustics can be applied with a probe, one end of which is tightly wrapped with cotton. With such a probe, one end of which is bent at right angles, the short arm of which is about an inch long, applications can be made behind the palate to the vault. The hypertrophied tissue must be destroyed, crushing it with forceps, cutting it with a knife, and galvano-cautery are allowable. The polypoid thickening of the ends of the turbinate bones can be touched with caustics, applied by means of a probe passed through a shield. Curette the vault when there is adenoid degeneration. In both the above forms of catarrh excess of secretion is the prominent feature requiring treatment.

In the atrophic form the secretion is absent, and the glands need to be stimulated to action, and astringents avoided. A spray from a weak solution of iodine, gtt. v.—x. to aq. ℥ i., or tr. sanguinaria 3 i. to aq. ℥ i., may be used. Sang., myrrh, and lycopodium in powder, blown into the nostrils, are a valuable stimulant. Continued applications to a

perfectly dry membrane bring a reward after a time, when the stumps of the glands begin to take on action and pour out the secretion.

The simple ozæna is treated by carefully removing the pellicle every day or two, and then using an astringent spray, after which iodoform blown into the nostrils in powder is effective. The nasal passages must constantly be kept open so as to allow all the offensive matter to flow freely out of the accessory cavities. The iodoform is not annoying to the patient, and, if care be taken not to get any of it on the clothing, will not be very disagreeable to others. When syphilitic ozœna exists the local treatment is the same. In addition, the usual internal remedies are employed. If any dead bone can be detached take it away at once. Finally, take up each complication singly and overcome it, remove all foreign bodies and tumors, fight every disease and diathesis with the proper remdies, and the same measure of success will be met with in treating catarrh as is encountered in treating other chronic disorders.

266 W. 42d Street.

## REINTERMENT OF THE REMAINS OF JOHN HUNTER, IN 1859.

### A BRIEF SKETCH OF HIS LIFE AND WORKS.

(Abstract of a Paper read before the New York Academy of Medicine, January 2, 1879.)

By ELLSWORTH ELIOT, M.D.,

[New York.

While spending a few days in London, in the spring of 1859, I saw in the advertising columns of a newspaper a notice that the remains of John Hunter, recently discovered in a vault beneath the Church of St. Martin-in-the-Fields, would be reinterred in Westminster Abbey.

[Here Dr. Eliot gave an interesting account with reference to obtaining a ticket of admission to the ceremony. He was the only American physician present.]

The grave-diggers in the old church showed me the coffin, covered with cloth, time-worn, but in good condition. It had been placed, at the time of his death, in Vault No. 3, which had been subsequently filled with coffins from the bottom to the top, and was found underneath many and toward the back part of the vault. The inscription upon the brass-plate was easily read: "*John Hunter, Esq. Died Oct. 16th, 1793, aged 64 years.*" . . . . . In an English paper it was stated that it had been discovered after a search of two days. This did not seem incredible after viewing the extent of the vaults and the number of coffins placed therein. . . . . .

Before the appointed hour, I was at the door, and was admitted "to the Jerusalem Chamber, through Dean's Yard." The chamber was venerable for its great age and historical associations. There King Henry IV. had died nearly four and a half centuries previously. "Even there my life must end," are his words, as we find them in Shakespeare. It was soon filled with the distinguished surgeons and physicians of London. Among others, Mr. John F. South, the editor of *Chelius' Surgery*, through whose kind direction I had received my ticket. An official of the Abbey soon announced that it was the hour for service, the order for daily evening-prayer, the musical portion being modified as suited the occasion. Apart from this, no word in praise or memory of the distinguished dead was spoken. No words could have been added to the impressive solemnity of that hour. The stately and solemn chant to the Psalm; the *Magnificat* and *Nunc Dimittis;* the voices of singers and the accompanying organ, as the music softened and swelled and echoed beneath the Cathedral's magnificent arches; Handel's anthem, "When the ear heard him, then it blessed him; when the eye saw him, it gave witness to him; he delivered the poor that crieth, the fatherless, and him that hath none to help him;" and the sublime chorus, "His body is buried in peace, but his name liveth for evermore;" and, lastly, the "Dead March in Sampson," as the coffin, borne on men's shoulders, was carried to the grave—these combined to make an indelible impression upon the mind and heart, which cannot be described.

> "When life is old,
> And many a scene forgot, the heart will hold
> Its memory of this."

It is a singular circumstance that Mr. Hunter's widow was unable to defray the expense of a burial of the remains of her husband in the Abbey at the time of his death, and for this reason they were placed beneath the church of the parish in which they resided.

The incidents which I have attempted to describe naturally lead to the inquiry, Who was John Hunter, and what did he do to deserve and receive such unusual honors? Sixty-six years after his death, a period of time during which very few escape oblivion, the exact place of his burial was with difficulty discovered, and his remains, found among an accumulation of some two thousand bodies, after a prolonged, difficult, and enthusiastic search, were piously placed at rest with poets and philosophers, "kings and counsellors of the earth." Why should the Dean and Chapter of Westminster, when application was made for a place for Hunter among the honored dead, whose graves they guard, have replied, that "they would be proud to be guardians of the ashes of so great a man?"

Briefly told, the leading facts of his life may be stated as follows: He was born at Long Calderwood, Parish of East Kilbride, Lanarkshire, Scotland, Feb. 13, 1728. The youngest of ten children, as a boy he gave no promise of celebrity. When twenty years old, he was able to read and write his native language; but this was the limit of his scholarship. The fame of his brother William, who is spoken of as "perhaps the best teacher of anatomy that ever lived," proved an incentive to his ambition. In the dissecting-room his progress was wonderful. He studied surgery under Cheseldon at Chelsea Hospital during the summer months of 1749 and 1750. He became House Surgeon of St. George's Hospital in 1756. Ten years' work in the dissecting-room impaired his health, which he sought to regain by acting as surgeon in the army. In 1763, without other pecuniary support than the half-pay to which his army service entitled him, he began practice in London as a surgeon. During the first years of professional life his business allowed him to devote much time to investigations in comparative anatomy and physiology, where he sought for the facts and the principles which are at the foundation of life and health and disease. Nor were these pursuits discontinued while life remained. In 1767 he was elected a Fellow of the Royal Society.

In 1768 he received the appointment of Surgeon at St. George's Hospital, whereby his practice was greatly increased, and pupils, at 500 guineas each, sought his instruction. In 1776 he was appointed Surgeon Extraordinary to the King.

In Dec., 1785, his famous operation for curing ancu-

rism by the application of a ligature between the tumor and the heart was successful.

In 1786 he was appointed Deputy Surgeon-General to the army. The following year he received the Copley medal from the Royal Society.

Thus from step to step he had reached the foremost place in the medical profession; yet we are told that "most of his contemporaries looked upon him as little better than an enthusiast and an innovator."

He died Oct. 16, 1793, of angina pectoris, the symptoms of which are said to have begun twenty years previously. Under date May 11, 1777, he writes to his former pupil, the celebrated Dr. Edward Jenner: "I was taken very ill with a swimming in my head, and could not raise it off the pillow for ten days; it is still not perfectly recovered." This was sixteen years before his death, which came under circumstances of peculiar sadness. While interceding with the trustees of St. George's Hospital for two Scotch students, who were desirous of receiving the educational advantages of that institution, to which there was some objection on account of their imperfect preparation, he was met with rudeness and insult. Without saying a word, he repaired to an adjoining room; a fall was heard, and he was lifeless. Soon his dead body, followed by the empty carriage, was borne to his late home. At the post-mortem examination, it was found "the coronary arteries had their branches which ramify through the heart converted into long tubes, with difficulty divisible by the knife. The mitral valves were *much ossified*. The aorta was somewhat dilated, its valves thickened, and wanting pliancy, and the inner surface of the artery was studded with opaque and elevated white spots."

His greatest gifts to mankind were in connection with surgery. Before his time, surgeons opened the tumor of a popliteal aneurism, and tied the artery above and below it; but many would amputate rather than resort to this discouraging operation, for it seldom succeeded. The principle of applying a ligature between the heart and the tumor, whereby its supply of blood was stopped, its circulation being established through anastomosing vessels, was thus first established by Hunter, and made general by him and his successors.

"Union by the first intention" is a boon which we scarcely appreciate, accustomed as we are to the simple method which Mr. Hunter taught in the treatment of wounds. It would astonish us to see a surgeon stuff a wound with charpie or other foreign substance after amputation, and wait for healing through the tedious process of suppuration and granulation. Yet this was done for many years after Mr. Hunter's death. It was long before the profession learned, what Hunter taught, that two cut surfaces, when brought and held in contact, would speedily unite.

His treatise on the venereal disease was for a long time the standard authority upon this subject. He developed the true principles connected with this disease, and made the treatment scientific, thus putting an end to the empiricism which had previously resulted in disastrous consequences.

An imperishable monument of his career remains in the museum which he founded—the pride of the Royal College of Surgeons. Ten thousand five hundred and sixty-three specimens were a proof of his unceasing diligence when called from his labors. I have mentioned that he did not leave sufficient property to provide for such a burial as his widow desired. The reason may be found in the fact that he had expended £70,000 on this museum alone.

The full and exact value of his labors will never be known, on account of the destruction of twenty or thirty large folio volumes, written in a fair and regular form, in which he had recorded his observations on comparative anatomy and physiology. They were burned, it is said, by his nephew, Sir Everard Home, who had stolen from them what he afterward published as his own.

I am aware that the subject as presented in this paper contains a very inadequate conception of the achievements of Mr. Hunter. Could an accurate statement of our art as it was in 1763, when he began to practise in London, be made, and his improvements and discoveries be fairly exhibited, it would then be clear how great is the debt which humanity and science owe to his labors—unsurpassed, if not unequalled. The more these are studied and understood, the greater will be the eagerness of physicians visiting the Abbey to find the place where I saw his body laid in the grave; and they will there read, deeply cut in brass, which is inlaid in a slab of polished granite, the inscription: "Beneath are deposited the remains of John Hunter, born at Long Calderwood, Lanarkshire, N.B., on the 13th of February, 1728. Died in London on the 16th of October, 1793. His remains were removed from the Church of St. Martin-in-the-Fields to this Abbey on the 28th of March, 1859. The Royal College of Surgeons of England have placed this tablet over the grave of Hunter to record their admiration of his genius as a gifted interpreter of the Divine power and wisdom at work in the laws of organic life, and their grateful veneration for his services to mankind as the founder of scientific surgery."

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MORTALITY AMONG PHYSICIANS IN THE EAST.—At the last meeting of the Relief Committee of "Stafford House," London, some interesting details were furnished concerning the risks run by the physicians who went to Turkey to care for the wounded and sick. This committee has sent 35 physicians to the East; 13 of them were attacked by dangerous maladies, and 2 died. The Red Crescent Society employed 45 physicians, of whom 14 were taken sick, and 7 died. The Red Cross Society employed 14, of whom 3 were taken sick, and 2 died; and the Turkish Charitable Fund sent out 11, of whom 3 have been dangerously ill. Of 40 Sisters of Charity, 30 took the fever, and 13 succumbed to it. Hence, out of a total of 105 physicians, all young and hearty, 33 were attacked with fever, and 10 died of it.

At the International Congress for the relief of the wounded, the Russian delegate made known the losses sustained by the Medical Corps. There were not less than 150 deaths, 14 of them on the field of battle.

MEDICAL SOCIETY OF THE STATE OF WEST VIRGINIA.—This Society has recently published the transactions at its last meeting in Weston, May 22, 1878. Some valuable papers were presented at that time.

In the opening address the President, Dr. M'Sherry, introduced the subject of public hygiene, and Dr. M. S. Hall made a report, urging the importance of the same matter. Papers were read upon the State Insane Asylum and the Medical Botany of Hardy County. There were many very interesting medical and surgical cases reported, the whole making this publication of the Society an extremely useful one.

Before adjourning, the Society elected Dr. W. H. Sharp, President, and Dr. N. F. Hullihen, of Wheeling, Secretary for the coming year.

## THE CURVED FLAP IN PLASTIC OPERATIONS ON THE FACE.

By GEORGE F. SHRADY, M.D.,

SURGEON TO THE PRESBYTERIAN AND ST. FRANCIS' HOSPITALS, NEW YORK.

The following case of plastic operation upon the face is presented for the purpose of illustrating what appears to be an improved method of filling a gap in the cheek. Considering the conditions to be fulfilled, it seems to me that no other procedure could have been adopted with a better result. In saying this much for the operation, I can, perhaps, in no more direct way express my appreciation of the good offices of my colleague, Prof. A. C. Post, who suggested to me the form of the flap which was used.

It is always a matter of concern to the surgeon how he can best fill up a vacancy in the face with the least possible deformity. In some instances the patient, far from being benefited, has reason to share the mortification of the operator, and sympathize in the number of scars with the probable condition of the man of "brier-bush" fame. Taking into account the size, the situation of the tumor removed, and the other conditions which are presented in the following history, it is probably not saying too much to state that the patient was fortunate in escaping with a minimum degree of deformity.

Fig. 1.

Fig. 2.

In April, 1877, Alexander M. presented himself at the Presbyterian Hospital, with a small tumor imbedded in the substance of the right cheek. An operation for the removal of this growth, by an incision through the mucous membrane, was performed by Dr. Detmold. Shortly after the operation, however, there was a return of fulness in the cheek, which was accompanied with a feeling of circumscribed hardness, and which finally declared itself as a return of the disease. In the beginning of November the patient again presented himself, the tumor being of the size of a horse-chestnut, occupying its former site, projecting an inch and a half above the facial surface, attached to the anterior edge and external aspect of the masseter muscle, to the maxillary process of the malar bone, and involving the overlying skin, the buccinator muscle, and buccal mucous membrane. It had a hard, almost cartilaginous consistency, especially over its anterior aspect, where the skin was furrowed and more deeply involved than at any other portion. The entire extent of Steno's duct seemed to be incorporated with the diseased mass.

The operation for the removal of the growth was performed on Monday, Nov. 25th, with the assistance of Drs. Post, Briddon, and Hinton.

An incision was made through the integument along the lower margin of the malar bone forward and slightly downward towards the angle of the mouth. At right angles with this incision, and at either extremity of it, two parallel ones were carried downward and backward, corresponding with the direction of the naso-labial furrow. Lastly, an incision parallel with the first was made, forming a quadrangular space, including the superficial area of the growth.

The incisions were then deepened through the entire thickness of the cheek, and along with the tumor portions of the buccinator muscle and of the mucous membrane were removed, as was also some of the external surface of the masseter muscle. There did not appear to be any direct connection of the tumor with the bone. A good portion of Steno's duct being involved in the growth, was removed with it. The anterior edge of the parotid gland showed itself along the line of the posterior incision.

The hemorrhage attending the operation was considerable, but not more than would be expected under the circumstances. A sponge was inserted into the mouth to prevent blood passing into the trachea.

In order to fill the vacant space in the cheek—which was two and a quarter inches in one direction and one and a half inches in the other—a flap was taken from the side of the face and neck. The vertical incisions of the parallelogram were continued directly downward for a distance corresponding with the depth of the vacant space above, and then curved rather abruptly backward until they terminated on the posterior aspect of the neck and behind the ear. This flap thus marked out, and shown in Fig. 1, was separated from the subjacent parts throughout its entire length. Some care was exercised in carrying on the dissection, as it was necessary to follow the external surface of the platysma myoides, and thus avoid wounding the external jugular vein. The flap was then brought up with the greatest ease, and when stitched into place there was not the slightest tension at any

point. As precautionary measures, however, two pin-sutures were inserted in the upper border of the flap and one along the line of the lower curve under the chin. Drainage by horse-hair was established at the most dependent portion of the wound. The pins were removed the second day, as were also the horse-hair drain and the alternate sutures. The wound healed by first intention throughout its entire extent, except in the situation of the drainage openings, which, however, closed within the first week.

The tumor was examined by Dr. Satterthwaite, and was pronounced by him to be an adeno-carcinoma.

On the tenth day after the operation, a small abscess formed between the front of the ear and posterior edge of the flap, and was opened. This continued to discharge for two days.

At the end of two weeks after the operation, the patient left the hospital cured. The openings on the outside had healed, the entire under surface of the flap had solidly united to corresponding portions of the neck and jaw, and the cavity of the buccal surface was filled partly with mucous membrane, and partly with soft, smooth, and pliant cicatricial tissue.

As might have been expected, there was considerable stiffness of the masseter muscle, but this, by the use of wedges between the teeth, has been gradually disappearing, the patient being able to open and close his mouth nearly to the normal extent. Within a week after leaving the hospital he presented himself with an abscess of the cheek, which I opened in the centre of the line of the upper margin of the flap. The discharge was of a character resembling salivary fluid, slightly mixed with pus. I found that the opening which I had left for Steno's duct on the inner side of the cheek was closed. Introducing a probe from the outside to that point, I made a free passage into the mouth. The external opening closed within four days, all signs of inflammation disappeared, and up to the present time the saliva has been discharged freely into the buccal cavity.

The use of the flap with a curved neck, as in this instance, possesses some advantages, in certain cases, over either of the methods ordinarily used by surgeons. These methods are chiefly those which are known as the Italian or Sicilian, which consists in transplanting from remote parts; the Indian, in which the flap is taken from adjacent parts, but the neck of the flap turned on its axis; and the French method, in which the chasm is filled by drawing a flap from the adjacent parts in a direct line.

It is well known that all flaps have a tendency to contract, and that when there is any tension upon the sutures connecting them with the adjacent parts, that union is apt to fail. It is always desirable to give as much margin as possible, in order to guard against such contingencies. The flaps transplanted by the French method show these tendencies to the greatest degree, inasmuch as the line of tension is direct. This necessitates a proportionate increase of length in the dissected skin. The same remark applies in a minor degree to the flap transplanted by the Indian method.

In the flap with a curved neck, however, there is, in proportion to its extent, less tension originally, and less chance for retraction subsequently. The tension, instead of being in straight lines, distributes itself along curves and in the direction of the radii of those curves. Subsequent retraction merely increases the arcs of these curves in a direction to do the least harm. This condition is seen in the alteration of the direction of the latter in Fig. 2, as compared with those made at the time of the operation.

The different directions in which the flap can be stretched, and the facility with which it adapts itself to its new position, is quite surprising, and can hardly be anticipated. In several rehearsals of the operation upon the cadaver I was somewhat disheartened at the degree of redundancy of skin above the lesser curve, and the extent of the vacant space below the line of the lower curve, after the end of the flap was adjusted. Although due allowance was made for the absence of elasticity of skin in the dead subject, I was prepared for the necessity of leaving a small space below the angle of the lower jaw for granulation. I was agreeably disappointed, however, after stitching from the base and extremities of the flap towards the centre, in being able to close up the wound entirely. The stretch was not only along the line of the curves, but in the direction of their radii, and to such an extent in the latter that the redundancy of the tissue under the ear complemented the relative deficiency at the point of greatest convexity of the flap under the jaw.

It is, perhaps, unnecessary to say that the figures represent the appearance of the patient before the operation and at the present time. These are taken from photographs by Mr. O. G. Mason, of Bellevue Hospital. In Fig. 1, are shown the position of the tumor, the quadrangular incision required for its removal, and the shape and extent of the flap. Fig. 2 is intended to represent the patient with the head turned to the right and the chin elevated, thus altering somewhat the relations of the curves of the flap as compared with those in Fig. 1. The scars which remain can be hidden completely by the whisker.

38 East Thirty-second Street, N. Y.

# Reports of Hospitals.

## HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

### Service of CHARLES T. HUNTER, M.D.,

DEMONSTRATOR OF SURGERY IN THE MEDICAL SCHOOL.

(Reported for The Medical Record.)

### FOREIGN BODY IN THE URETHRA.

On the 17th of July, 1878, T. D., æt. 63, was admitted into the University Hospital, for the purpose of having a fragment of a glass tube extracted from his urethra. D. gave the following history of his case: Has always been strictly temperate in his habits; and has never had any affection of his genito-urinary apparatus.

For several years patient has been one of a relief committee of a lodge of "Knights of Pythias," and while performing the duties of this position he met several members of this order who had great difficulty in passing urine, in consequence of enlargement of the prostate gland, and were dependent on the use of a catheter for relief. Fearing that he might have the same trouble at some future time, and being anxious to provide against such a disagreeable contingency, T. D. determined to practise catheterization on himself with a glass tube. In his first attempt he succeeded in passing a medium-sized glass tube into his bladder, and drew off urine, without the parts involved sustaining any injury. The success of this experiment encouraged him to try the operation a second time, the results of which were less satisfactory, as the sequel will show. On the day of T. D.'s admission into the hospital, he procured a straight

glass tube, about 25 centimetres (10¼ inches) in length, and half a centimetre in diameter, with which he proposed to repeat self-catheterization. He had no difficulty in introducing the tube as far as the prostatic urethra, but at this portion of the urethra the tube was suddenly arrested. D., in his efforts to overcome the obstruction, used sufficient force to break the tube in two pieces, one of which he immediately pulled out of the urethra, but the other being out of his reach, was left in. Shortly after D.'s admission to the hospital, I made an examination, and found the fragment of the glass tube fixed in the urethra, one end in the prostatic portion, and the other penetrating the wall of the scrotal part. The fractured end of the fragment, D. had forced through the floor of the urethra into the loose cellular tissue of the scrotum, by his attempts to get the tube out. He had also tried to expel the tube by passing his urine; but instead of displacing it, it only served to carry urine into the scrotum, through the cellular tissue of which the urine was quickly diffused. From the position in which the foreign body lay in the urethra, and the manner in which it was held there, it was evident that it could not very easily be extracted by any instrument, such as forceps, passed into the urethra. Nor could it be removed through an opening made in the perineum without risk of doing additional violence to the already lacerated urethral walls. To take it out through a perineal section would necessitate the breaking of the fragment of tube in two or more pieces in the urethra; and the removal of which pieces would be attended with considerable danger, in consequence of the sharp, angular ends which the pieces would have. In considering the difficulties of the case from all points, it occurred to me that, in consequence of the fractured end of the broken tube being already in the scrotum, the safest and the most practicable plan of removing the tube would be, either to make an opening in the integuments of the scrotum, and extract the tube through it, or to introduce my finger into the patient's rectum, get behind the smooth end of the tube in the prostatic urethra, if possible, and push the sharp end forward through the scrotal walls. As soon as the patient had been brought under the influence of ether, I directed two assistants to support his legs in the position that they would be held in the operation of lithotomy, in order that the scrotum and perineum might be fully exposed.

I now proceeded to introduce my right forefinger into the patient's rectum, carried it up behind the prostate gland, till I could distinctly feel the smooth end of the tube through the urethral wall; then, having made the scrotal integument tense near the fractured end, with the thumb and finger of my left hand, I quickly pushed the tube forward through the scrotal wall with my right forefinger. The small wound of the scrotum, made by the operation, was instantly closed by contraction of the dartos structure. As the scrotum had become infiltrated with urine prior to the extraction of the tube, I made four free incisions in it, two either side of the raphé, to relieve tension and to get rid of the urine, thereby to prevent subsequent sloughing. For eight days after the operation the patient's urine was drawn off three or four times a day with a catheter, the utmost care being used to prevent the escape of any urine through the wound in the urethra. At the expiration of this period he was permitted to pass his urine in the natural way; this he was able to do freely and without pain, clearly showing that the wound of the urethra had securely healed. Apparently, as a consequence of some injury inflicted on one of the testicles by the end of the tube, a mild epididymitis developed itself soon after the accident; this attack, however, yielded promptly to treatment, and soon subsided. The incised wounds of the scrotum that were made to facilitate the escape of urine from the cellular tissue, healed in a short time under the effects of local applications of laudanum and water. The patient's bowels were kept at rest for four or five days, and some slight pain relieved by suppositories of opium: no subsequent medication was required.

In the progress of this case it is worthy of notice that the patient did not have either a chill, or any symptoms of urethral fever. On the 30th of July D. left the hospital quite well, with the exception of a little enlargement of one epididymis. The length of the fragment that was extracted was 10¼ centimetres (about 4¼ inches).

## Progress of Medical Science.

Intestinal Stenosis as a Result of Tubercular Ulcers.—A woman, 42 years of age, was admitted into the Vienna General Hospital with a history of having suffered for ten years from paroxysmal attacks of gastric pains, accompanied by vomiting and loss of appetite. During the preceding five weeks she had suffered also from abdominal pains, with alternating diarrhœa and obstipation. When admitted she was very emaciated and anæmic. The abdomen was very tender on pressure, especially in the epigastrium and above the symphysis. Vaginal examination showed that the end of the vagina and the uterus were very sensitive. No abdominal tumor could be discovered. The paroxysms of pain were accompanied by loud rumbling and colicky contractions in the intestines. The examination of the lungs and other organs was negative. The evacuations were often very profuse and fluid—partly fæcal and partly mucous, grayish or yellowish. They were generally followed by relief of the abdominal pains. These diarrhœal passages alternated with obstipation. Old grape seeds were frequently found in the evacuations, although the patient had eaten no grapes during the preceding year. This circumstance pointed strongly to the existence of an intestinal stenosis. One obscure point in the clinical history was the very frequent occurrence of high fever (104° F.) at night, followed by profuse sweating. Quinine had very little effect on these attacks of fever. They naturally aroused a suspicion of tuberculosis, but the examination of the lungs revealed nothing abnormal, and there was absolutely no cough or expectoration. Four months after admission to the hospital salivation set in, without any affection of the mouth. These symptoms persisted for eight months, when the patient died of exhaustion.

The section revealed groups of gray and yellow nodules and spots of caseous hepatization scattered throughout the upper lobes of both lungs; slight swelling of the gastric mucous membrane. About the junction of the jejunum and the ileum a short stretch of the intestine was twisted in various directions by false membranes and adhesions, and was bound fast to the abdominal wall in the neighborhood of the internal inguinal opening. At the point of adhesion the intestine, the lumen of which was already diminished by the twisting, was still further constricted by a wide, ring-shaped ulcer with a slate-

gray callous base containing yellow, cheesy masses. The uterus was enlarged and dense; the tubes were distended and filled with cheesy masses.—*Bericht der k. k. Rudolph-Stiftung in Wien*, 1877.

ACUTE ASCENDING PARALYSIS.—Dr. Jaffé reports a case of the rare form of disease known as acute ascending paralysis (Landry's paralysis). The patient was a young man, 25 years of age, with an excellent family history, and came under observation on October 2, 1877. He had contracted a syphilitic ulcer nine months previously, followed by secondary roseola, and he had indulged very much in venery for a few weeks previous to the onset of his present illness. August 31, 1877, the patient began to suffer from diarrhœa, debility, and a feeling of heaviness in the legs, which had increased to such an extent by October 2d that he was unable to leave his bed.

Present condition, October 2d: Pulse and temperature normal; lower limbs completely paralyzed; reflex action lost; sensibility perfect. Upper limbs are normal. In the course of the day patient complained of a painful pressure upon the chest. October 3d: Diarrhœa has ceased after the adminstration of opium. The nerves and muscles react normally to the induced current. The hands have become paretic. October 4th: Paresis of upper limbs has increased to such an extent that the patient is unable to feed himself. No urine was passed for the last twelve hours. Temperature still normal. The paralytic symptoms increased in intensity for the next three days; retention of urine still persisted; respiratory movements were very superficial. The faradic excitability of the paralyzed parts had markedly diminished, but slight galvanic excitability still persisted. Sensation and cerebral functions normal. Tendon reflex could not be obtained. The muscles contracted readily upon slight percussion. There was no atrophy of the limbs. The patient was placed under antisyphilitic remedies. Symptoms remained the same until October 12th, when dyspnœa set in, in consequence of acute pulmonary œdema, and the patient died in a few hours. This case is differentiated from poliomyelitis anterior acuta by the ascending character of the paralysis, by the absence of atrophy of the muscles, and by the absence of degenerative reaction. This observation disproves the opinion that the electrical excitability of the paralyzed nerves and muscles is always retained in this disease. Unfortunately, no post-mortem could be obtained.—*Berl. klin. Wschrft.*, November 4, 1878.

TREPHINING IN EPILEPSY.—In the *Archives Générale de Médecine* for December, 1878, Dr. Echeverria has published a *resumé* of the results of trephining in epilepsy resulting from injuries of the skull. He has collected 145 cases of this operation. Of these, ninety-three were followed by recovery; eighteen by improvement; in five no change was produced; one was rendered worse; and death resulted in twenty-eight cases. The causes of death, in the fatal cases, were extremely varied, viz.: suppuration over the whole surface of the brain, hemorrhage into the brain under the seat of operation; gangrene of the membranes and cerebral abscess; obstinate hemorrhage of the superior longitudinal sinus; meningitis and meningo-encephalitis.

Dr. Echeverria gives the following *resumé* of the results of his analysis of the cases referred to:

Trepanation is the best means which can be employed in the treatment of epilepsy caused by injuries to the skull.

The immediate operation appears to be almost as successful as the late; fever forms a serious contra-indication to the operation. Insanity and paralysis justify the operation.

Trephining succeeds equally well when syphilitic products upon the bones of the skull, and which have proved rebellious to specific treatment, act as the cause of epilepsy.

The success of the operation depends, in great part, upon our ability to prevent irritation of the cerebral meninges.

It is, finally, advisable to keep the patient under anti-epileptic treatment for some time after the operation, in order to overcome the so-called epileptic *habit* of the nervous system.

RARE CASES OF LARYNGEAL PARALYSIS.—Dr. G. M. Lefferts has published, in the last number of the *New York Medical Journal*, two extremely interesting cases of bilateral paralysis of the dilator muscles of the glottis (musculi crico-arytænoidei postici), in both of which recovery occurred. The first patient was a woman, æt. 40 years, who had previously suffered from secondary and tertiary manifestations of syphilis. At the end of April, 1876, she began to suffer from continually increasing dyspnœa, and on May 7th had two severe attacks of laryngeal spasm. Inspiration was attended with stridor and considerable muscular effort; expiration was noiseless, easy, and short. The voice was but slightly husky. On laryngoscopic examination, a narrow slit was seen between the vocal cords, gaping slightly during expiration, and *disappearing entirely* on forced inspiration. The sensibility of the laryngeal mucous membrane was undiminished. The patient was placed under antisyphilitic remedies, and on June 15th laryngoscopic examination showed normal condition of the glottis, all the dyspnœal symptoms having likewise disappeared.

The second case reported by Dr. Lefferts was, in all respects, the same as the first. It occurred in a syphilitic female patient, and rapidly improved under antisyphilitic measures. Apropos of the first observation, Dr. Lefferts expresses the opinion that, in the absence of corroborative evidence of any specific lesion in the nervous centres, he must regard the paralysis of the muscles as due to some direct and local effect of the syphilitic virus, although what the nature of this action is, he is unprepared to state. This hypothesis does not appear to be supported by any positive evidence in its favor.

LYMPHATIC ELEPHANTIASIS ARABUM.—The results of a post-mortem examination of a fatal case of lymphatic enlargement of the thigh and leg were reported by Dr. Day, of London, to the London Pathological Society. They were principally negative, for which Dr. Day accounted by our very limited knowledge of the physiology and the pathology of the lymphatic system. There was no evidence from this examination of any obstruction to the femoral vein, and, apparently, no enlargement of the arterial or venous trunks, though it seemed highly probable that some great disturbance took place from time to time, owing to the heat of the limb, pain and swelling, and especially those rapid local changes in the limb which ensued shortly after the fatal seizure. There was an increased length and growth of the bones of the affected limb, in which this case differs from all the cases of which Dr. Day has any knowledge, although a similar one is said to have been reported by Dujardin in 1854.—*Chicago Medical Journal and Examiner*, December, 1878.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, January 25, 1879.


## PROFESSIONAL ATHLETES AND PHYSICAL EXHAUSTION.

PUBLIC attention has been directed, particularly within the past few months, to various extraordinary feats of pedestrianism and wrestling. As might have been anticipated, the interest has been carried to that extreme of absurdity which has culminated in betting upon the endurance of human beings the same as upon that of horses or other beasts. The consequence has been that, instead of elevating healthful exercise in the estimation of the people, athletes are found who are willing to prostitute their powers and cater to a morbid appetite by testing their strength, even to the jeopardy of life itself. Fatigue takes the place of natural reaction, and exhaustion means victory.

Not long since a lady completed a walk in Brooklyn, apparently for the purpose of proving how much severe work she could undergo, and from how much sleep she could deprive herself in the meantime. At the end of the trial we hear of her victory coupled with the apparently unimportant statement that she was thoroughly exhausted, and had delivered herself up for medical treatment. It is also stated that the greatest care has to be taken to return her to her previously normal condition, in order that she may not suffer from the dreadful reaction which outraged nature inflicts. And this history does not stand alone in the records of pedestrianism or wrestling-matches. Not long since an athlete was carried from the ring fainting, with weak cardiac pulsations, and in a general state of prostration, which prospected permanent disability. The heart-strain of soldiers during forced marches, of oarsmen in a hotly contested race, of gymnasts in a vaulting-match, are accidents which are acknowledged to be of quite frequent occurrence, but are seemingly entirely lost sight of in the desire for a victory, the expenditures of strength and of vitality in which could at any time be surpassed by many of the lower grade of animals.

A few days since it was announced that a wrestler in Chicago sustained a fracture of the clavicle, by being heavily thrown during a performance. Of course this was legitimate, and the suffering man was defeated. But how can all these things prove that professional athletism is a useful science, and that its study from such a standpoint should be encouraged with the American people?

We are accustomed to advise our patients that exercise beyond the point of fatigue is detrimental; what can we say for the benefit of such exercise when it approaches the verge of absolute exhaustion?

### SCHOOL HYGIENE.

IN a recent number of *Puck* a very suggestive cartoon bearing upon school hygiene is presented. A class of infants with enormous heads and attenuated frames worn out by exhaustion are being taught by a skeleton who, in his blackboard definitions of grammar and geography, etc., makes some capital hits on the prevailing school diseases. Between him and the scholars is an open sewer-trough, the poisonous vapor from which obscures the map upon the wall and causes a member of the Board of Education, who, oddly enough, is on a tour of inspection, to hold his nose. Sketches like these are exceedingly effective, and no cause like the one which is at present being plead is more worthy the advocacy of the gifted pencil. Too much pains cannot be taken to bring the matter before the people in the way of compelling a proper reform.

In connection with the latter point, it is a subject for great congratulation that the Board of Education has at last been so effectually aroused by the press, that steps have been taken to inquire, by means of a committee appointed for the purpose, into the sanitary condition of the schools. As an evidence of their earnestness in the matter it may be stated that when one of the Board chose to insult the gentlemen of the press and other parties, by attributing to them interested motives in regard to the matter, the other members apologized for him and wished to place their protest on record. We shall watch the doings of the committee with much interest.

### MEETINGS AND TRANSACTIONS OF THE STATE MEDICAL SOCIETY.

WE are glad to receive from Dr. Smith, the present Secretary of the State Society, a letter (in another column) which appears to throw some color of legality about the change in the meeting time of the Society in 1876, and also affords confirmation of the rumor, to which we had previously alluded, that there had indeed been a meeting of the State Society in February of that year, the minutes and proceedings of which meeting, however, have never appeared in the published Transactions of the Society. Concerning this meeting, Dr. Smith says: "They had therefore

full authority to adjourn this annual meeting to June, 1876." The Transactions, however, do not speak of the June meeting as an adjourned, but as "The Annual Meeting held pursuant to statute." If, as suggested by Dr. Smith, the change February 1, 1876, was made in accordance with the provisions of the Act of 1823, it will be interesting to learn whether this actually took place before or after the passage of the statute of February 1, 1876. It is certainly a little curious, moreover, that the twenty-three members of the State Society then assembled in Albany knew nothing of the legislation affecting their interests, which on that very day became law, and it is still more curious that none of the officers of the State Society appeared to know of the existence of this statute, until more than eighteen months after its enactment. We presume the true state of affairs, however, may be arrived at when the omitted minutes are published. It is but justice to Dr. Smith to state that the matters here referred to occurred before he became Secretary, since which time the Transactions appear to contain the full and entire proceedings of the Society.

There are some other facts, however, connected with the Transactions that should receive consideration. For many years, up to and including 1874, the Transactions were published at the expense of the State, and copies of them were distributed to the county societies, whose members received them either free or on payment of a nominal sum. Some years ago, at one of the annual meetings of the New York County Society, a cart-load, more or less, of these Transactions was brought to the meeting, and the members were informed that they could have them gratis, if they would give themselves the trouble of taking them away. A few members availed themselves of the opportunity, but the remainder of these volumes still remain in the possession of the Society. Since 1874, the Transactions have been published nominally at the expense of the State Society, but virtually at the expense of the county societies, which are compelled to subscribe for five times as many copies as they have delegates, under the supposition that their members would gladly take them at the price fixed by the State Society.

As each fresh invoice was received, notice was duly given by the Secretary to the members of the Society, that the Transactions had arrived and could be obtained from him at cost price. As a matter of fact, but few copies were sold in this way, and at the last annual meeting the Secretary stated that there were still some five or six hundred volumes in the possession of the Society, and that more were coming. After some discussion a motion prevailed to dispose of them to members at the rate of fifty cents a volume. Of this resolution all members were officially informed by the Secretary. The rush for the Transactions at the reduced price did not exhaust the supply. In fact we are informed that not more than a dozen applications were received. At the last meeting of the Society it was voted to distribute them gratis to such members as would call on the Secretary for them. It remains to be seen how much this offer will reduce the stock on hand. It is certainly very clear that the members of the New York County Society do not want the volumes at the price which the Society has to pay for them, and under these circumstances the Society may well consider whether it is to its interest any longer to encourage the publication of volumes whose value to them does not appear to be equal to the cost of production.

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### THE ALCOHOL QUESTION IN ENGLAND.

WITHIN a comparatively recent time serious attempts at temperance reform have been begun in England. Many prominent persons have interested themselves in the agitation, which has shown itself in the organization of coffee-house companies, in the securing of pledges, and in demands for new legislation. The idea of drinking only water is a novel one to the English mind, but the energetic efforts of the reformers have at length brought it into prominence. There has recently appeared in the *Contemporary Review* a kind of "symposium" on the alcoholic question, the contributors being seven English physicians, most of whose names are familiar. Some idea of what their opinions are may not be uninteresting.

Sir James Paget takes the ground that the moderate habitual use of alcohol is "certainly pleasant and probably useful." In regard to moderate drinking, he says that the balance of medical and of popular feeling favors it, and that neither statistics nor physiological or pathological researches have proved it injurious. Nations who use alcohol largely, compare well with those who do not use it, and they do not appear to have inherited evils from their many generations of drinking ancestors.

Dr. T. Lauder Brunton takes up the more practical side of the question, discussing how and when alcohol is useful. There is, he says, a small class to whom alcohol is a poison; the smallest amount sets them wild. There is a second class whom alcohol exhilarates and quickens for the time; such persons indulge in it at great risk. The great majority of persons under middle age do not need it, and, as a rule, are better without it. In persons who are in the decline of life, however, and in the debilitated, alcohol is a powerful and beneficial remedy. Alcohol is given as a food and as a stimulant. It is a food, but is one which interferes with the oxydation of other foods in the body while it is being itself decomposed, and as a food it is only adapted to febrile conditions. As a stimulant it acts directly upon the heart, and reflexly upon the stomach, stimulating the circulation of the brain. After the first stimulus to the nervous system, the succeeding effect of alcohol is one of pro-

gressive paralysis. The higher centres suffer first, notably the judgment, and finally all succumb. Alcohol as a stimulant is useful occasionally to tide over a severe crisis, but its best effect is in rousing the system at the close of exhausting work.

Dr. Albert J. Bernays believes in the moderate use of alcohol also. He dwells more especially on the causes and extenuating circumstances of intemperance. In regard to these, he says that the water furnished by London, to its lower classes at least, is extremely bad and undrinkable. Then the adulterations in beer make its effect worse. Sugar is put in, and this destroys its thirst-quenching property, and salt acts in the same way; these being the two important adulterations. The variations in the alcoholic strength of liquors increase intemperance. At present, gin may have all the way from fifty-four to eighty per cent. of alcohol in it. The atmosphere of public-houses is foul and overheated, and is injurious to the workingmen who sit there. Beer is the best form of alcoholic drink according to Dr. Bernays, and wine the next. The present intemperance cannot be corrected by teetotalism, but it can be alleviated by other methods.

Dr. Walter Moxon takes ground against total abstinence, but devotes most of his article to a psychological explanation of why a man becomes a sot. His analysis of the question is sufficiently profound and correct, but it only tells us in polysyllabic terms that the nervous, excitable temperaments are more susceptible to alcohol than the phlegmatic ones.

Dr. S. Wilkes asserts alcohol to be, to all intents and purposes, a narcotic and not a stimulant. It does not help those who are under special mental pressure, such as students working for prizes. It makes those engaged in intellectual effort less clear-headed, and under its influence the English laborer does less work.

Sir Wm. Gull is more careful in his recommendations of alcohol. In disease and debility it is useful, and also in overwork; but in the latter instance other things will do just as well, and Gull himself, when exhausted, eats raisins instead of drinking wine. Good food will supply all the wants of the system up to middle life, and though a glass of beer may help a laborer along, a biscuit will do just as well. Intellectual work can be done better without the alcohol. Bitter tonics or Liebig's extract of meat may quiet the craving for liquor which many persons have at times.

Dr. C. Murchison states that a man in good health does not need alcohol, and is probably better without it. He may take liquor occasionally without harm, but its habitual use, even in moderation, is attended with risk and may even induce disease. In conditions of the system characterized by weakness of the circulation, the habitual daily use of alcohol is likely to be beneficial.

It will be seen that in general these views coincide with those of the profession at large. Alcohol in disease is a valuable remedy; in the decline of life it is a useful adjunct to the diet; in healthy persons who have been overworked, it helps recuperation; its habitual use is always attended with risk.

As regards total abstinence, we believe it to be unattainable, and, except for the young and healthy, undesirable. There is an appetite for alcohol which will be satisfied, and which neither temperance societies nor legislatures can destroy. It would be better, then, if the spasmodic efforts of these bodies to prevent the use of alcohol altogether were directed to seeing that it is used temperately. There is much to be done in the way of introducing good malt liquors and light wines, in establishing coffee-houses, and in introducing harmless substitutes for alcohol. It might be of help if physicians would impress the fact that alcohol is essentially a narcotic, not a stimulant. And something might be accomplished by educating every one, not omitting the higher classes, to a deeper sense of the beastliness of inebriety.

## Reports of Societies.

### NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, December* 11, 1878.

DR. JOHN C. PETERS, PRESIDENT, IN THE CHAIR.

ADENO-CARCINOMA OF CHEEK—PLASTIC OPERATION.

DR. GEO. F. SHRADY presented a tumor of the cheek, which he removed Nov. 25th from a male patient aged forty-three years. The specimen was not so interesting from a pathological as from a surgical point of view; in fact, the principal object of its presentation was to illustrate a somewhat novel method of filling up a vacancy which was occasioned by the operation. (*Vid.* page 82.)

DR. POST remarked that the use of the flap with a curved neck in that situation was a novelty, and the very satisfactory result of the operation showed its superiority over the ordinary straight flap which is generally advised.

DR. HOWE did not see the necessity for horse-hair drainage in Dr. Shrady's case. He believed that the wound would have healed entirely without it; as it was, the only part that did not unite was in the track of the drain.

DR. SHRADY remarked that the horse-hair drain was introduced as a precautionary measure, and was allowed to remain only twenty-four hours, giving exit to the bloody serum, which might otherwise interfere with primary union at other points.

DR. POST thought in all such cases it was best to be on the safe side, as there was generally some oozing of serum under the flap. If this matter accumulated it might produce an abscess which would necessitate the tearing open of some part of the original wound, or the making of a new opening.

AN INTERESTING CASE OF OMENTAL HERNIA.

DR. ALFRED C. POST presented a specimen of omentum with the following history:

On the 3d December, 1878, I was called to Jersey

City, *in consultation with* Drs. Quimby and Kiersten, Jr., *to see* Mrs. ——, ætat. 87, who had had what was supposed to be a reducible inguinal hernia for about twelve years, and had worn a truss for the same. Six days before I was called in consultation the hernia was represented to have come down, and she could not replace it. The swelling became hard, inflamed, painful, and tender on pressure. The bowels had been somewhat constipated, but enemata had brought away some fæcal evacuations. There had been some vomiting, but not of a stercoraceous character. Leeches had been applied, with partial relief of the pain. I found a hard swelling of an ovoidal form just above Poupart's ligament, extending from the pubes nearly to the anterior superior spinous process of the ileum, but not descending into the labium. There was no resonance on percussion. The patient being etherized, an attempt at reduction was made, but without success. There was considerable uncertainty as to the diagnosis of the disease—the form, the position, and the firmness of the swelling seeming to indicate the existence of an inflamed lymphatic gland, while the clinical history rendered probable the existence of a hernia. It was determined to make an incision down to the diseased structure, and to do whatever the circumstances of the case seemed to require. Dr. Quimby accordingly cut down on the tumor above Poupart's ligament and parallel with it, and cautiously divided layer by layer, until a sac was opened, from which there was an escape of an ounce or more of bloody serum. There was no intestine in the sac, but a mass of omentum, intensely congested, of a very dark color like that of venous blood, but not softened in its texture nor emitting a gangrenous odor. This was very carefully unfolded to ascertain that no portion of intestine was concealed within it, and being deemed unfit to be returned within the abdomen, was excised with scissors close to the external ring. After this a free application of carbolic acid (1 to 40) was made to the stump, which was then carried upon the finger into the abdominal cavity. The wound was then thoroughly sponged with the same carbolic solution, and tents moistened with the same were introduced into the sac and into the wound outside of the sac. The edges of the wound were then closed with fine sutures, except at the end where the tents protruded. Linen cloths, wet with the carbolic solution, were then applied over the wound, and directed to be covered with oil-silk.

On the 7th December, Dr. Quimby reported that the patient had suffered considerable pain on the day after the operation, but that relief had been afforded by an eighth of a grain of sulphate of morphia every hour. The patient had since done well.

### THE DIAGNOSIS OF STRANGULATED HERNIA.

Dr. Briddon referred to the case of a German woman, upon whom he had operated for strangulated hernia, many years ago. The patient had been treated by an apothecary for six or seven days for inflammation of the bowels. She then fell into the hands of Dr. Aigner, who asked Dr. B. to see her. The history of the case was one of incomplete obstruction. There was vomiting, but it was not stercoraceous in character. The parts presented precisely the character of a suppurating bubo. The centre of the swelling was traversed by Poupart's ligament, and the periphery of the swelling was œdematous. An incision down upon the sac gave exit to a considerable quantity of fetid serum. The gut was of a dark maroon color, but was not gangrenous. After the stricture was divided the gut was returned. The patient made a good recovery. On the ninth day after the operation, she, considering it a critical period, took an ounce of cream of tartar, which insured for her a good passage, not only per rectum, but through the wound. The wound subsequently healed.

A second case, to which he also referred in this connection, was that of an Italian woman whom he saw with Dr. Walter Gillette. This patient had also the symptoms of partial intestinal obstruction, viz., vomiting, but not stercoraceous in character. A swelling extended on the right side from the spine of the pubes to the anterior superior spinous process of the ilium. It was impossible to distinguish the character of the hernia because, as in the former case, the tissues were infiltrated, the parts were immovable, and the skin was œdematous, as in abscess. An incision being made, he came down upon a cavity containing pus which was apparently in the intestine itself. The neck of the sac was situated external to the femoral artery after having passed underneath the ligament. At the bottom of the cavity laid open was a structure lying under the mucous membrane, which he supposed to be the appendix vermiformis. Whether it was a case of hernia of the cæcum or not, he was not prepared to say. Fæcal matter was discharged from the wound for some time, and then everything closed up.

A third case, bearing upon the question of the diagnosis between swollen lymphatic glands and hernia, was also recited. He was called, two or three years ago, to see the son of a physician, who was said to be suffering from the symptoms of strangulated hernia. The little patient was six years of age. He presented a swelling in his groin, immediately over the saphenous opening, and about the size of a hickory-nut. It was movable, gave no pain, and there was no vomiting. Dr. B. felt quite sure that there was no hernia, but an abscess. The father of the child assured him, however, that there was no swelling in the groin an hour before. With the assistance of Dr. Mason, who was called in counsel, an explorative incision was made over the swelling. On dividing the superficial fascia, the resemblance of the appearance to that of hernia was very marked, as the swelling was underneath the cribriform fascia that covered the saphenous opening. The incision was continued through the fascia, when an inguinal gland as large as ahickory-nut was turned out, and that was the end ofthe hernia.

Dr. Mason remarked that in the latter case there was vomiting and tenderness on deep pressure over Poupart's ligament.

Dr. Briddon did not recollect that point in the case.

Dr. Post had met with vomiting and abdominal pain associated with inflamed glands, especially if the latter were situated beneath the deep fascia.

### SCIRRRUS OF BREAST.

Dr. Post also presented a specimen of scirrhus of the breast, with the following history:

Mrs. O'B., ætat. 65; admitted into the Presbyterian Hospital November 18, 1878. She had been married forty-five years, and had had no children. She noticed a tumor in the breast about five months before her admission. The tumor involved less than half of the substance of the gland. The nipple was retracted, but the skin moved freely over the breast, and the breast was free from any adhesion to the subjacent parts. The lymphatic glands were not apparently involved in the disease.

On the 21st November I excised the breast in the usual manner, removing with it a strip of integument about two inches wide, including the nipple. There was very little hemorrhage, and only two vessels were

tied. I did not use antiseptics until after the removal of the tumor, when I washed the whole surface of the wound with a carbolic solution (1 to 40), and introduced a drainage-tube through the whole length of the wound, projecting at the two extremities. I then closed the wound with numerous fine sutures, after which the carbolic solution was injected through the drainage-tube. The wound was then covered with lint moistened with the carbolic solution, over which oil-silk was applied. No bandage was applied over the dressings. Within about a week the sutures and the drainage-tube were removed, and union had taken place throughout nearly the whole of the *wound*.

I have performed excision of the mammary gland at the hospital in two other cases within the last two months, and employed similar dressings, with like results. In one of these cases, a male patient, whose general health was much impaired, a portion of the wound reopened, and has been tardy in healing.

EXCISION OF KNEE-JOINT.

DR. E. MASON presented the knee-joint which he had excised from a patient of Bellevue Hospital on the 25th of last September. The patient, who was also exhibited, was thirty-six years of age, married, and a laborer by occupation. About six months before admission to the hospital he injured his knee by a stroke from an axe. The wound was a superficial one, and healed in three days, when he returned to his work, that of a miner. In the course of a few days afterwards the thigh became swollen and painful. A surgeon made an incision on the inner side of the knee, and, according to the patient's statement, a pearly colored fluid escaped. This wound continued open. Shortly after the incision an abscess discharged itself on the outer side of the knee, and at the bottom of the sinus, which was still open, bare bone was detected. Three months before admission a spontaneous opening appeared below the tubercle of the tibia. The leg was flexed upon the thigh at an angle of 160°, the joint was fixed, and the head of the tibia dislocated backward. On examining the patient it was supposed by some of the surgeons that bony anchylosis existed. Through the opening on the inner side of the head of the tibia a probe could be passed into the cavity of the joint. When the patient was placed under ether, motion of the joint could be obtained, and bony crepitus could be elicited.

It was evident that the whole joint was completely disorganized. The ends of the articular surfaces were sawn off, the extremities of the bones wired together, a drainage-tube was introduced, and the limb put up in an immovable plaster apparatus. The operation as well as the dressings for some weeks afterwards were done under carbolic spray. The patient did remarkably well. At no time, with one exception, did his temperature rise above 100° F. At the end of the first week the wound had healed except in the line of the horse-hair drain. The latter was removed at the end of the second or third week, and all the apparatus was *removed*. At the end of six weeks the silver wire was withdrawn and firm bony union was found to have taken place. Since that time the patient had been walking around the ward with the aid of a cane.

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*Stated Meeting, December* 26, 1878.

DR. JOHN C. PETERS, PRESIDENT, IN THE CHAIR.

RHINOPLASTY.

DR. A. C. POST presented two photographs illustrating the appearances before and after the operation for rhinoplasty. In the month of June last, a male, aged eighteen years, presented himself for treatment at the Presbyterian Hospital, with a deformity of the nose, occasioned by the kick of a horse ten years before.

The nasal bones had been fractured and driven down almost to a level with the facial plane, while the top of the nose was turned strongly upward, the nostrils presenting themselves anteriorly.

The operation consisted in making an incision from cheek to cheek, through the nasal pyramid, and about three-quarters of an inch from the tip of the nose. The nasal septum was divided and the tip brought down to its proper relation, the vacancy occasioned thereby being filled by a flap from the forehead. Several minor operations were performed subsequently, resulting in a well-formed nose.

Dr. Post stated that DR. WEIR performed a similar operation upon a patient with an upturned nose, but took the flap for filling the chasm from the side of the cheek.

RAPID LITHOTRITY

DR. SANDS presented a vesical calculus which he had removed by Bigelow's operation of rapid lithotrity. The patient was a gentleman sixty-nine years of age, of delicate constitution, and who had suffered for a long time from lung trouble supposed to be chronic phthisis, and who had at the time he came under observation slight albuminuria, the urine also containing hyaline casts. Symptoms of stone showed themselves two years before the operation, and during the summer of this year he was examined by a gentleman of this city, who referred him to Dr. Sands. Dr. S. saw the patient in consultation with Dr. DeHart, at Chappaqua, and performed the operation on the 28th of October last. The urine contained a moderate amount of pus and triple phosphate. Although it had been noticed at previous examinations that uric acid was contained in the urine, it was believed that the stone was hard. So it proved to be. The operation lasted one hour and ten minutes. The fenestrated lithotrite was used. The aspirator was employed twice only. The first time the fragments were removed, the second time the bladder was thoroughly emptied. The prostate was enlarged. The uretha was capacious and would have admitted a larger tube than the one employed. The size used was No. 28, and was a curved one, the straight tube having failed to enter. The stone was found to consist of uric acid. It measured in diameter one and a quarter inches. It was pretty thoroughly crushed before the aspirator was used. When the tube was inserted the first gush of urine carried with it a considerable quantity of detritus, which was not collected. The fragments which were obtained weighed ninety grains. The patient had no bad symptoms after the operation. In the third week he was able to get out of the house, and within a month walked two miles and a half without discomfort.

In conclusion, Dr. Sands remarked that Bigelow's method was a decided improvement upon the old one, and that the apparatus devised by Dr. B. embodied so many important improvements of Clover's apparatus that it was virtually a new departure.

DR. POST, while not wishing to detract from any merit belonging to Bigelow's method, wished to state that he had operated in a number of cases successfully by the old plan, and under what *a priori* might have appeared to be great disadvantages. One patient came during the winter months (to Dr. Post's clinic) from Yonkers, a distance of eighteen miles, and returned after each sitting. There were four of the latter, which were necessarily quite prolonged. No un-

pleasant symptoms followed. In that instance the stone which was crushed was of moderate size. When stones were large, the advantages of Bigelow's method over all others were not to be questioned.

THE PATHOLOGY OF NEPHRITIS.

DR. C. HEITZMANN exhibited microscopic specimens of inflamed kidneys. The process of acute nephritis has been studied in his laboratory by Dr. Alfred Meyer, and the results published in the Transactions of the Imp. Acad. of Sciences of Vienna, Vol. LXXV., 1877. Since Richard Bright, in 1827, has drawn attention to diseases of the kidneys very often fatal—the term "Bright's Disease" was extensively used, although it was evident that quite a number of different morbid processes of the kidneys were included in that term. In fact, no scientist should use the expression "Bright's Disease" nowadays, but rather designate the main series of diseases as inflammatory, viz., nephritis. Against the views of Virchow, who distinguishes an interstitial and parenchymatous nephritis, the older denominations of 1. Catarrhal, 2. Croupous, and 3. Suppurative Nephritis, deserve preference, according to the researches of the named author.

1. In acute catarrhal nephritis the epithelia of the tubules are much enlarged, so as to reduce the central lumen considerably; they are coarsely granular, viz., their living matter is augmented, the interstitial connective tissue exhibits the condition of œdema and of beginning inflammatory infiltration. This disease in its highest degrees kills rapidly with the symptoms of uræmia, milder degrees lead to desquamation of the epithelia; these appear in the urine together with a varying amount of albumen, but without tube-casts. In the chronic condition the interstitial connective tissue is reduced to inflammatory or embryonal elements, from which, in turn, new cicatricial connective tissue arises. In the production of this tissue also numerous epithelia share, only after being reduced to a medullary condition. The result of this process, the chronic catarrhal nephritis, including the desquamation of epithelia and the interstitial new-growth of connective tissue, is shrinkage of the kidneys with a uniformly granular surface.

2. In acute croupous nephritis casts are formed in the tubules, according to the intensity of the inflammation in the narrow tubules, in the convoluted tubules of the second order, and also in the straight tubules. Casts are evidently products of an exudation from the blood-vessels, together with changed epithelia of the tubules. Alfred Meyer holds that the irregular, mainly flat epithelia, as a rule present around the casts, are newly formed after the destruction of the original epithelia had taken place through imbibition with an albuminous exudation. The interstitial connective tissue is considerably infiltrated with inflammatory elements; the capillary blood-vessels, mainly those of the tufts, are dilated, and either choked with blood or with a solid coagulation identical with that of the tube-casts. The result of croupous nephritis, if healing be the termination, are irregular cicatricial depressions on the surface of the kidney, which almost never has decreased in size. The large fatty and waxy kidneys are to be considered as results of secondary changes after primary nephritis.

3. Suppurative nephritis appears either in the shape of disseminated foci of pus, or in the shape of large abscesses within the tissue of the kidney. The formation of pus can be traced both in the interstitial connective tissue and in the epithelia of the tubules. Both kinds of tissues are first reduced into the medullary condition, and in this condition lead through proliferation of living matter to the formation of new medullary or inflammatory elements. Lastly these elements are isolated and bear the name pus-corpuscles. In larger abscesses the pus sometimes becomes inspissated and cheesy, this representing a merely secondary change, independent of tuberculosis.

AN ATLAS IN TWO SEGMENTS.

DR. BRIDDON presented an atlas in two segments, and gave the following account of it:

By the courtesy of Dr. I. C. Foster, of Clarksville, Texas, I am permitted to present a rare specimen from the human skeleton, viz., an atlas in two segments; with it I present a similar normal bone from the adult, so that you may compare the two. It will be found that the two segments would constitute a single bone somewhat larger than the one with which you compare them; the vertebral foramen is certainly larger, measuring laterally and antero-posteriorly one inch and three-eighths, and from the extremity of one transverse process to the other, three inches; the separation or division into lateral halves is through the centre of the anterior and posterior arches; the posterior half arch terminates in a blunt extremity on the left side, and the demi-facet for the odontoid on that side is larger than on the right; on the right side the posterior arch terminates in a point; it is probable that in the recent specimen the extremities of the arches were covered with cartilage and united through the medium of fibrous tissue; but of that nothing is known, for the specimen has no history.

In the April No. of *The Amer. Jour. of Med. Sciences*, 1874, is a woodcut of a precisely similar specimen, obtained from a man about seventy years of age, and described by Dr. W. W. Keen, of Philadelphia. The doctor, a well known teacher of anatomy, says: "It is the only one I have ever seen, and I cannot find, after considerable search, any similar instance recorded."

Opinions vary as to the centres of ossification in the atlas. Gray, Sharpey and Quain give three, viz., one for each of the lateral masses, and one occasionally for the arches. Cruveilhier gives four—one on each side for the anterior and posterior arches. Wilson, one for each arch and each lateral mass. Others as many as six, three on each side.

Beclard says: "Ossification commences in the sides of the atlas near its articulating surfaces earlier than at any other point of the column."

Humhpry: "Posterior arches have been found united by bone at five years, occasionally a separate nucleus is developed in the cartilage at the point of their junction. Posterior arches also united at birth by fibrous band, with sometimes a central nucleus, ossified at or before twelve years."

In the Musée Orfila is an adult atlas with the forepart of the arch separate from the sides of the bone, and in Guy's Museum is a specimen of an adult atlas in which union has entirely failed both before and behind, so that the vertebra remains divided into its two primitive lateral portions.

OBSTINATE SINGULTUS CURED BY MURIATE OF PILOCARPINE.—Dr. Ortille reports a case of persistent singultus, due to cerebral embolism, which proved utterly rebellious to all the usual methods of treatment. As the singultus persisted even during the sleep produced by morphine injections, and the strength of the patient was becoming greatly reduced, a hypodermic injection of half a grain of pilocarpine was at last administered. This produced abundant perspiration and salivation, and the hiccough ceased at once.—*Allg. Med. Cent. Zeit.*

## NEW YORK ACADEMY OF MEDICINE.

### OBSTETRIC SECTION.

*Stated Meeting, November* 29, 1878.

DR. SALVATORE CARO, CHAIRMAN.

#### THE VOMITING OF PREGNANCY—TREATMENT BY RECTAL ALIMENTATION.

DR. A. C. POST related the history of a case of severe vomiting in pregnancy, treated by rectal alimentation.

The patient totally abstained from taking food by the mouth for three weeks.

In the month of March last he was called to visit a lady who was the mother of one child about eighteen months old, which she was still nursing. She was considerably depreciated in health. She had not menstruated since the birth of her child. It was advised that the child be weaned, which was accordingly done. She was suffering from nausea and vomiting at the time, and those symptoms were not relieved by the weaning of the child. There was nothing to suggest the idea of pregnancy. An attempt was made to relieve the vomiting by the use of remedies ordinarily employed in such cases, but the treatment failed. At last it was advised that the woman be confined to the recumbent position, that she should abstain entirely from food taken by the mouth, and that entire reliance should be placed upon rectal alimentation. The nutritious enemata consisted of defibrinated beef's blood, beef tea, milk, and pepsine. The quantity given at each injection was about four ounces, and the injections were repeated every three hours. She was kept upon that treatment for nearly two weeks, yet no marked change occurred in her general condition.

A consultation was proposed, and Dr. Alonzo Clark was called. The council agreed that it was best to persevere in the plan of treatment adopted. Neither Dr. Clark nor Dr. Post suspected that the woman was pregnant. At the end of three weeks the nausea and vomiting were very much relieved, and the patient began to retain food upon the stomach. As soon as food taken by the mouth could be retained in sufficient quantity, rectal alimentation was discontinued, but for three weeks there was total abstinence from food taken into the stomach. On the third of October last the woman gave birth to a strong, healthy child of average size. It was Dr. Post's impression that the prostration of the woman was so great in March, she would have died had it not been for the rectal alimentation.

Reference was also made to a case in which the system was sustained nearly to weeks by the exclusive use of nutritious enemata. In that case the disturbance of the stomach was brought on by the too free use of stimulants.

The two cases illustrated the benefit of entire rest when a morbid condition of the stomach, such as prevented it from retaining food, existed.

DR. SELL mentioned the co. helonias pill as a very valuable remedy in the treatment of obstinate vomiting of pregnancy. The pill was composed of three ingredients, viburnum, helonin, and caulophyllum.

#### REMEDIES FOR DILATING THE CERVIX DURING AND PREPARATORY TO LABOR.

DR. SELL related a case as an example of several, in which he had used the concentrated tincture of caulophyllum, or squaw weed, with the happiest results, as a remedy to ward off tedious labor. The remedy was especially applicable in those cases in which the woman had habitually suffered severely during the first stage of labor. As a preparatory remedy in such cases it should be administered in twenty-drop doses three times a day, for three or four weeks previous to confinement.

DR. MERRILL remarked that he had witnessed similar results from the use of castor oil during labor. He referred to cases in which he had found the os rigid, had ordered a dose of the oil, and, by the time the bowels were freely evacuated, the rigidity had disappeared, and speedy delivery was effected.

He further remarked that he had used castor oil with good effect in cases in which the uterine contractions were weak and the os was considerably dilated. Given in half-teaspoonful doses every ten or fifteen minutes, the oil had produced marked uterine contraction as rapidly as he had ever obtained by the use of ergot.

DR. SELL regarded the oil as a dangerous medicine to be given during the latter months of pregnancy, for if it had the power to excite uterine contraction, it might produce premature delivery.

He also referred to gelsemium as a valuable remedy in cases of rigid os during labor.

DR. MERRILL remarked that he never ordered castor oil, except when he was convinced that it was time for labor, or the process had already commenced. He always charged his patients not to take castor oil during the last months of pregnancy, if remedies were needed to keep the bowels open, because of the liability to excite uterine contraction.

DR. F. V. WHITE remarked that when he was an interne in Bellevue Hospital, it was customary to administer castor oil to the lying-in women on Sundays, and there were marked results following its administration.

He also asked Dr. Sell if he had not obtained as satisfactory results from the use of chloroform in cases of rigid os during labor, as from the use of gelsemium.

DR. SELL replied that he preferred gelsemium to chloroform.

#### SPONTANEOUS CURE OF VESICO-VAGINAL FISTULA.

DR. W. T. WHITE gave the history of a case as follows: About six weeks ago he saw a case in consultation, with the view to making an operation for vesico-vaginal fistula. The woman had been delivered by instruments about six weeks previous to the time he saw her, and soon after the operation it was found that urine escaped from some false passage. The examination revealed a fistula upon the left side and near to the cervix. There was an opening at least three-fourths of an inch in length, and edges of the rent were slightly everted. As there was a probability that menstruation might occur within two weeks, it was thought advisable to postpone the operation until that process had passed. About ten days subsequently it was noticed that urine had ceased to escape from the vagina, and an examination at the end of three weeks revealed the fact that the vesico-vaginal fistula was completely closed.

#### YELLOW FEVER DURING PREGNANCY—QUESTION OF TRANSMISSION OF THE DISEASE FROM MOTHER TO CHILD.

DR. CARO related a case as follows:

Mrs. C., 24 years of age, multipara, of German parentage, and a healthy, strong woman. In 1862 she had yellow fever, and recovered. When the epidemic of yellow fever of the present year broke out she was

living in Memphis. Being pregnant, and fearing that disastrous results both to herself and to her child would follow an attack of the disease, she left that city on the 20th of August and came north. The epidemic at that time was at its height. She arrived at New York on the 23d of August, and on the morning of the 25th she was taken with a severe chill. After the chill she began to have labor-pains, which continued for several hours, when a midwife was sent for, who found that labor had commenced. Within twenty-four hours the woman gave birth to an eight-month child, reckoning from the date at which the last menstruation occurred.

After delivery of the placenta, a chill occurred, and after that chill the lochial discharges ceased. Reaction followed, and the fever increased. A physician was sent for, who arrived at the conclusion that the woman had intermittent fever, and prescribed accordingly. After having the first chill, jaundice appeared, and the patient soon after began to vomit a yellowish black substance. When Dr. Caro first saw her in consultation she was suffering from severe headache, was restless, had great hyperæsthesia over the entire body, and the abdomen was tympanitic and painful; the pulse was 110, and the temperature 103° F.; the skin was of a yellow brownish color, and the patient occasionally vomited mouthfuls of very yellow matter; her bowels were confined, and there was retention of urine. Dr. Caro was not certain whether he had to deal with a case of yellow fever or a case of puerperal fever. That puerperal fever was present he felt quite certain, and he was also quite sure that he had to deal with yellow fever. To quiet the patient, and also to act upon the skin, morphine and bicarbonate of soda were given, and nourishment in the form of beef-tea and milk.

On the evening of the same day Dr. Caro again saw the patient and found her sleeping quietly. The skin was moist, and there had been no vomiting since his first visit. The temperature was 101° F., and the pulse 110. No urine had been passed, and there was a tympanitic sound upon percussion over the bladder. The same remedies were continued. On the following morning, at 7 o'clock, the patient was again restless, and the dose of morphine was increased from one-eighth to one-fourth of a grain every two hours. The temperature was 101° F., and the pulse 110. No urine had been passed, and there had not been any movement from the bowels. With the double view of satisfying both himself and the Board of Health, Dr. Caro asked that Dr. Janeway should see the patient in consultation. A consultation was held, and the conclusion reached that puerperal fever was the predominant disease, but that yellow fever was also present.

Although the woman was in a precarious condition, it was insisted by the Health Board that she should be sent to Quarantine. She was removed, and died at Quarantine on the third of September. The special point of interest, from a scientific view, was that the child was born healthy and had remained free from the disease. If the mother had yellow fever, the supposition would be that the child should have died from the same disease.

Dr. Caro had no doubt but that the yellow fever, associated with the three days' trip from Memphis, brought on the premature delivery.

The fact that the child survived was evidence to sustain the doctor in the belief that yellow fever was not transmitted from mother to child, as was supposed to be the case with scarlet fever and small-pox.

Again, if a child, in the uterus of a woman suffering from yellow fever, did not receive the poison of that disease, how could a child be narcotized by a hypodermic injection of morphine administered to the mother?

Dr. W. T. White asked if it was the prevailing opinion that a child delivered while the mother was suffering from yellow fever, must necessarily have the same disease?

Dr. Caro replied, that he thought it was.

Dr. White referred to a case in which a pregnant woman had well-marked yellow fever from which she recovered, and at full term, about two months later, gave birth to a living healthy child.

The Section then adjourned.

## Correspondence.

### THE LEGALITY OF MEETINGS OF THE STATE SOCIETY.

To the Editor of The Medical Record.

Dear Sir:—In reply to the article on page 37 of the current volume of the Record, with reference to the legality of some of the late meetings of the Medical Society of the State of New York, it may be stated that good legal authority, after full presentation of the facts, decided, and so advised the President of the Society elected in June, 1877, that the meeting then held was a perfectly legal annual meeting, and consequently its election of officers valid. Its action, however, in changing the time of holding the annual meeting to the third Tuesday in January was not in compliance with the statute, and therefore the change was illegal and void. At the meeting held January 15, 16, and 17, 1878, it was decided by the members present that that meeting, though not the annual meeting for 1878, was to all intents and purposes an adjourned session of the annual meeting of 1877, and hence a meeting at which a notice of intention to change the time of the annual meeting could properly be given. The change was actually made at the annual meeting held June 18, 1878, and the time for the annual meeting fixed for the first Tuesday in February of each year.

The Register of the Society gives evidence that the annual meeting for 1876 was duly held on Tuesday, February 1, 1876. There were twenty-three in attendance—five delegates and eighteen permanent members—or more than a legal quorum. They had, therefore, full authority to adjourn this annual meeting to June, 1876.

By reference to page 62, Transactions 1869, it will be seen that the act passed April 23, 1823, though entitled an "Act to enable the *County Medical Societies* in this State to alter the time of holding their Annual Meetings," confers that ability on *any society* incorporated under the act entitled "An Act to incorporate medical societies," etc. By reference to that act, as published in the Transactions for 1869, page 59, section 3, it appears that the Medical Society of the State of New York was virtually re-incorporated under that act, and therefore became enabled by the act of 1823 to change the time of holding its annual meetings. The act of February 1, 1876, appears to have been unnecessary.

Yours respectfully,

Wm. Manlius Smith, *Secretary*.

7 Myers' Block, Syracuse, N. Y., Jan. 13, 1879.

## DETERMINATION OF SEX IN UTERO.

To the Editor of The Medical Record.

Sir:—The following *facts* (for which I can vouch) may be of interest to your readers.

A and B were married 8th May, 1861. Cessation of menses, 5th May, 1861; intercourse on night of marriage, resulting in a *son* still-born. 13th January, 1862.

Menses ceased 29th July, 1862; coition 31st July, 1862; *son* born 15th April, 1863. No return of menses after birth of this child, but a *daughter* was born 30th October, 1864.

Menses ceased 15th May, 1866; coitus, 18th May; *daughter* born 16th February, 1867.

Menses ceased October 13, 1868; coitus, 15th October; *son* born 10th July, 1869.

Menses ceased 20th March, 1870; coitus, 23d March; *daughter* born 27th December, 1870.

Menses ceased 24th June, 1872. Husband returned after a long absence, 10th July, 1872. Menstruated 18th July; *son* born 10th April, 1873, nine months exactly from date of husband's return.

Menses ceased 20th December, 1875; coitus, 22d December; *son* born 19th September, 1876.

Menses ceased 20th January, 1877; coitus, 23d January; *son* born 27th October, 1877.

In this record of six sons and three daughters, *experience* proves that *either* sex may result from coitus immediately subsequent to menstruation.

Menacrates.

## STATE SOCIETY AND NOMINATING COMMITTEE.

To the Editor of The Medical Record.

Dear Sir:—In your editorial in the last number of the Record, January 18th, p. 63, on "The State Medical Society," you are in error in saying that I recommended that the by-law in regard to the mode of forming the Nominating Committee be changed to the present form. The credit for that change is due to Dr. James V. Kendall, of Baldwinsville, Onondaga County. He had proposed and advocated the change at previous annual meetings, and by thus setting many members to thinking of it, it was found that at the meeting of 1877 the Society was prepared to adopt his proposition as an improvement on the then existing plan.

In the President's address to which you refer there is a recommendation to correct the usage of permanent members only being eligible to offices and committees of the Society. And upon this, and most of the other recommendations the Committee on the Address did report adversely.

Very respectfully yours,

E. R. Squibb.

Brooklyn, Jan. 20, 1879.

## THE YELLOW FEVER FUND.

To the Editor of The Medical Record.

Sir:—A check for $58 has been received from Dr. Cabell, of Richmond, Virginia. The $2,000 subscribed by the New York Chamber of Commerce has not yet been called for, nor the $250 from the Secretary of State; nor will they be, until the list of the sufferers is complete. One thousand dollars has been forwarded to Memphis, and it is hoped that more can soon be sent. The arrangements with Grenada, Mississippi, are also almost perfected. No replies have been received from Vicksburg, Hollysprings, and various other places, which have been written to. Communications have been received from Dr. C. B. White, of New Orleans, and N. E. Ravena, of Charleston, S. C., both recommending a special family as having strong claims upon the profession. The committee again respectfully and earnestly urges its request for all obtainable information.

J. C. Peters, *Chairman.*

# Obituary.

## JOHN BARCLAY BIDDLE, M.D.

Dr. John Barclay Biddle, professor of materia medica in the Jefferson Medical College, dean of the college faculty, and President of the Board of Inspectors of the County Prison, died at seven o'clock on Sunday evening last, at his late residence, 831 South Seventeenth Street, Philadelphia. Dr. Biddle had been an invalid for the last four or five years, and took frequent trips to Europe to improve his health. Two weeks ago he was attacked with a severe cold, causing congestion of the lungs and pleurisy, which conditions finally assumed a typhoid type and brought on death.

Dr. Biddle was the eldest of the sons of Colonel Clement C. Biddle, a Philadelphian by birth, born January 3, 1815, who in early life was an officer in the military and naval service of the United States, and who, later, was for a long period President of the Philadelphia Savings Fund. Always inclined towards the medical profession, it was not long after attending schools in this city and graduating from St. Mary's College at Baltimore that he entered the medical department of the Pennsylvania University, under the special instruction of Dr. Nathan Chapman. Upon the completion of his studies there he visited Paris, and placing himself under the instruction of the best teachers, devoted considerable time to lectures and hospital work in that city. Returning to Philadelphia, with Dr. Meredith Clymer he started the *Medical Examiner* about the year 1842. This journal was a weekly periodical devoted to medicine, and achieved success. Dr. Biddle, after a few years as editor, entered upon private practice. In 1844, in connection with Professor Joseph Leidy, Drs. Paul B. Goddard, David H. Tucker, and Dr. Joynes, he founded the Franklin Medical College, which stood for years in Philadelphia on Locust Street near Twelfth. All the supporters of the college gradually withdrew from it to other pursuits, and the college died out; but during its short career it graduated many students who are now distinguished physicians. Upon the death of Dr. T. C. Mitchell, which occurred in 1865, Dr. Biddle, in the fall of that year, was elected to the vacant professorship of materia medica in Jefferson College. Placed in this position he turned all attention towards the preparation of a treatise on materia medica for students, which was accepted by the faculty of Jefferson College, and reached an eighth edition. Soon after taking this chair Dr. Biddle was made dean of the college faculty, and continued both dean and professor uninterruptedly until death.

A dozen years ago Dr. Biddle was appointed Inspector of the County Prison, and a little later the board made him their president. He was attending physician of the Deaf and Dumb Asylum and of Girard College. He frequently contributed to the medi-

cal press. A family of six children and a wife survive him. Of his two sons, Clement, after graduating from the Jefferson Medical College, passed an examination qualifying himself as surgeon in the navy. Recently he sailed for the Mediterranean in an official capacity. William is a navy lieutenant.

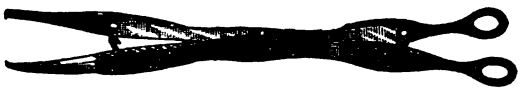
## New Instruments.

### A DOUBLE FORCEPS.

By C. J. CLEBORNE, M.D.,

MEDICAL INSPECTOR, U. S. NAVY.

The little instrument figured in the accompanying illustration combines in a compact form an artery, bulldog and tissue forceps, and two needle-holders.



Like other forceps, they are designed to take the place of the fingers where objects are too small to be grasped by them, or when they cannot be used to advantage. The fenestrated jaws, which I have called "tissue forceps," will be found useful for holding the skin for the passage of needles in making sutures in hare-lip and other operations. It will save pricking the fingers, will hold the tissues firmly, and may be used for temporarily arresting hemorrhage. Both ends of the instrument are deeply grooved to hold needles or pins at any angle, while the inner borders of the points are cut transversely, and are double-toothed, to retain securely an artery or other small object. The blades are held together by the Liston spring, and their middle sections and *sides* are file-cut so as to prevent the fingers slipping. It is handsomely manufactured by the Messrs. Tiemann, at a very moderate cost, and, with or without my tenaculum-needle, will be found a useful addition to the pocket-case.

### ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 12th to January 18th*, 1879.

KOERPER, E. A., Capt. and Assistant Surgeon.—Leave of absence granted by S. O. 110, December 3, 1878, from Headquarters Department of the Platte, extended three months. S. O. 12, A. G. O., January 15, 1878.

BARNETT, R., First Lieutenant and Assistant Surgeon.—Assigned to duty at these headquarters from 2d inst. S. O. 3, Department of the Platte, January 6, 1879.

GRAY, C. C., Major and Surgeon.—Retired from active service in conformity with section 1252 Revised Statutes. S. O. 8, A. G. O., January 10, 1879.

DR. S. H. SHANNON, a graduate of the class of 1836 in Jefferson Medical College, died at Schuylkill Haven, Pa., on January 17th, after a lingering illness. He was born at Shannonville, Pa., in 1814. The deceased had a varied and extensive practice of forty years, which gave him a position as a skilful practitioner. He was one of the largest property-holders in the county.

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending January 18, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| Jan. 11, 1879. | 0 | 8 | 274 | 1 | 2 | 65 | 0 | 0 |
| Jan. 18, 1879. | 0 | 9 | 204 | 5 | 6 | 52 | 0 | 0 |

MEDICAL SOCIETY OF THE STATE OF NEW YORK.—The seventy-third annual meeting of the Medical Society of the State of New York will begin its Sessions in the city of Albany, on Tuesday morning, February 4th, at 9 o'clock.

The following-named gentlemen have notified the President or Secretary of their intention to present papers for the consideration of the Society: E. R. Hun, "Cavernous Angioma of Tongue;" W. C. Wey, "Twenty-seven Cases of Pleural Effusion, requiring Aspiration;" H. G. Piffard, "Further Contributions to the Treatment of Lupus;" J. R. Leaming, "Phthisis Pulmonali, Classification and Practical Consideration;" Lewis A. Sayre, "The Traumatic Origin of Subfascial, Deep-seated, or Cold Abscess;" J. S. Prout, "The Anatomical Relations of the Middle Ear;" E. M. Moore, title unannounced; J. C. Dalton, (1) "Scientific Ghosts," (2) "Sections of the Brain;" A. Jacobi, title unannounced; Fordyce Barker, "Some of the more Recent Methods of Treatment of Albuminuria and Uræmic Convulsions;" E. R. Squibb, (1) "Note on the Estimation of Urea," (2) "Revision of the U. S. Pharmacopœia in 1880," (3) "Draft of a Proposed Law to Prevent the Adulteration of Food and Medicine, and to Establish a State Board of Health;" Chas. G. Bacon, "Incubation Period of Scarlet Fever;" C. R. Agnew, "Cataract;" W. T. Lusk, "The Treatment of Hemorrhage in Abortion;" H. D. Noyes, "Address on Ophthalmology;" A. Van Derveer, "Uterine Fibroids, a New Treatment;" Norman L. Snow, "Practical Facts Verified by the Treatment of Twenty-five Cases of Fracture of the Femur;" R. F. Weir, (1) "Supra-Condyloid Amputations of Thigh," (2) "Carbolized Jute as a Wound Dressing;" L. D. Bulkley, "The Use of Water in the Treatment of Diseases of the Skin;" W. S. Ely, title unannounced; Alfred C. Post, (1) "Description of a Rhino-Plastic Operation," (2) "Some of the Therapeutic Uses of the Actual Cautery;" Stephen Smith, "Carbolized Catgut Ligatures in the Treatment of Aneurism;" F. R. Sturgis, "On the Abuses of Medical Charities from a Medical Point of View;" Wm. A. Hammond, "Non-Asylum Treatment for the Insane;" D. Webster, "Glaucoma;" Beverley Robinson, "Ulcerative Phthisical Laryngitis and the Value of Tracheotomy in its Treatment;" T. E. Satterthwaite, "Personal Observations in One Hundred Cases of Cancer;" H. T. Hanks, "The Early Diagnosis of Occipto-posterior Positions;" A. L. Loomis, "The Adirondack Region as a Therapeutic Agent in the Treatment of Pulmonary Phthisis;" C. S. Bull, "Pilocarpine;" A. L. Ranney, "Causes of Death during Surgical Operations;" L. Johnson, "The Action of Baptisia Tinctoria in Typhoid Fever;" A. McL

Hamilton, title unannounced; Alex. Hutchins, "Report on By-Laws;" J. C. Hutchison, title unannounced; J. P. Cruveling, "Laparotomy for Intestinal Obstruction;" Walter B. Chase, "A Case of Dislocation of the Acromial Extremity of the Clavicle downward;" E. G. Loring, "Effect of Optical Condition of the Eye on the Development of Character;" W. H. Thomson, "The Relation of Vascular to Nervous Diseases." The President will deliver an address on "The Relations of the Medical Profession to the State."

Gentlemen who propose to present papers will confer a favor on the officers of the Society by communicating with the President or Secretary at once.

DEATH OF PROF. LANDON R. LONGWORTH, M.D., OF CINCINNATI, OHIO.—It is with deep regret that we hear of the death of Prof. Longworth, which occurred January 14th, as the result of an attack of pneumonia. He for some time past occupied the chair of Descriptive Anatomy and Clinical Surgery in the Medical College of Ohio. Endowed with great natural talent, and being a gentleman of high education, and an industrious and efficient worker withal, he gave great promise of a brilliant future. Although comparatively young in years, he made some valuable contributions to histology, a branch of science which he cultivated with great assiduity.

THE CAROLINA TWINS AT A PHILADELPHIA CLINIC.—The much-advertised "Carolina Twins" were subjected to a scientific examination at Prof. Wm. H. Pancoast's clinic at Jefferson Medical College Hospital, on Saturday last. Before their entrance Dr. Pancoast read his memoranda of the examination of the twins, which he made about eight years ago. He considered the case a much more remarkable one than that of the Siamese Twins, who were two distinct persons, joined by a ligature only, whereas the Carolina colored women had but one backbone in common below the shoulder-blade. Above this point the spinal column branched like the arms of the letter Y. At their birth they were directly back to back, but as they were learning to walk they naturally twisted themselves considerably in order to facilitate locomotion. This change from their original relative positions it was possible to effect without injury or pain to either of them, owing to the softness and pliability of the bones in early youth. There was on record but one case that might be supposed to have been a parallel to that of the Carolina twins. This was that of the famous Hungarian sisters, who were born in 1701, and died in their twenty-second year. Their bond of union, though never scientifically determined, seemed to have been the same as that of the Carolina twins. They differed from the Carolina twins, however, in not possessing the same general characteristics.

Dr. Pancoast showed that if either of the twins were touched upon, or at any point below where the body was common to both, each of them would feel it, but that if he were to touch one of them above the point where the spinal column branched, the communication would reach only the brain of the one touched. He demonstrated, however, that the line was moving higher which divided their common from their separate and distinct nervous sensitiveness. Eight years ago a touch half an inch higher than the common part of the spine could be felt by both; but any farther up the sensitiveness was not shared by the person untouched. Now, however, it was proved by experiment that the common sensitiveness to a touch of the same character existed in either body at least two inches above the angle formed by the Y branches. Dr. Pancoast believes that the twins would die together.

EFFICIENT QUARANTINE—The following extract from the annual report of Health Officer Vanderpoel to the Quarantine Commissioners is interesting in its bearing upon the question of intelligent quarantine as connected with yellow fever:

"A large number of vessels from ports known to be infected arrived during the past season. Of these an unusual number had sickness and deaths from yellow fever, either while lying in port, on their passage hither, or after arrival.

Forty-five cases of sickness were in the lower bay and at the hospital; of these thirty were yellow fever, and fourteen deaths. Five of these were from sick taken from vessels; three died on vessels arriving, and six from cases received from New York, Jersey city and Brooklyn.

From the ninth of June until the last of September there was not an interval of three days without cases of yellow fever being in the bay. During all that period not the slightest excitement or alarm was manifested by this immense community at its near proximity; nor did a vessel, whether infected or having sickness on board, lose her sailing day from this port.

THE PROPHYLAXIS OF SCARLET FEVER.—A. Hurd, of Finlay, Ohio, in the report of a severe case of scarlet fever occurring in a family of children, writes:

"There were four other children (three younger than the patient, and one older) in the family.

"Must they also have the fever? Can it be prevented? With this view I order the window-curtains to be taken down; all unnecessary articles of clothing to be removed; use carbolic acid freely; ventilate rooms well, and, thinking it will do no harm if no good, put the other children on fld. ext. belladonna and hyposulphite of soda, in doses sufficient to produce redness of the skin and well-marked enlargement of the pupils. Continue it through the whole duration of the sickness of the boy and girl, and to my great gratification all *four* of the *children escaped* and *remained free from the disease*, and do till this date. Was it a happy and wonderful *coincidence*, Was it good ventilation, careful hygiene, and cleanliness, or did belladonna and the hyposulphite of soda, etc., act as a prophylactic?"

A NEW PHILADELPHIA MEDICAL JOURNAL.—We take pleasure in recording the announcement of the early appearance of another medical journal. The new-comer is the "Medical Bulletin," a sixteen-page octavo, to be edited and published by the Jefferson Medical Association of Philadelphia, and distributed gratuitously. The contents are to consist principally of original matter, having strict reference to the regular practice of medicine and surgery. A particular feature is to be a student's department, in which topics of special difficulty to beginners in medical science will be discussed in a practical way. The journal will begin its existence as a quarterly.

GINTRAC.—Henri, Dean of the Medical Faculty of Bordeaux, and Professor of Clinical Medicine, died in Bordeaux on December 2d, of organic disease of the heart. He was 58 years of age. It is less than a year since we had to record the death of his father, also a prominent teacher of medicine.

A CORRESPONDENT in *The Lancet* admonishes his readers to order "Merck's Extractive Hyoscyamine" in order to obtain uniform results from the remedy. The dose is that of atropia (which it resembles in physiological action) gr. $\frac{1}{60}$ to $\frac{1}{30}$.

# Original Communications.

## CONTRIBUTION TO THE TREATMENT OF NEURALGIAS.

By WM. B. NEFTEL, M.D.,

NEW YORK.

In looking over my notes on cases of neuralgia, treated by me in the last eleven years, I was surprised to find some features which repeat themselves with great uniformity in almost every instance. They are, therefore, of general interest as characteristic of this class of nervous affections.

The cases of neuralgia which came under my observation were, without exception, of very long standing, having lasted from five to fifteen years and more, and having resisted all methods of treatment. Such cases can serve as a practical test of the efficacy of the methods of treatment employed. While many other chronic affections may, with an indifferent treatment and under favorable circumstances, assume a milder form, or even tend toward recovery, these inveterate neuralgias never improve spontaneously; but, if left to themselves, or not under a proper treatment, invariably remain incurable. Such patients generally become convinced of the incurability of their affection, and, after having tried in vain almost every remedy, they are obliged to resort to certain palliatives in order to mitigate the severity of the attacks, until some intercurrent disease puts an end to their suffering. Sometimes the acute disease does not terminate fatally, and may produce a favorable change in the general health, and modify or even cure the neuralgia. It is remarkable that, from a large number of narcotics which are used as palliatives, only a few afford relief in each individual case, and are therefore permanently employed. Prominent among all is morphia, which is generally resorted to by the physician, whether a member of the regular profession, a homœopath, or belonging to any other school—even the doses being precisely the same, *i. e.*, the quantity necessary to afford relief. The consequence is, that the majority of sufferers from severe neuralgia acquire also the morphia habit. Much depends, however, upon the frequency of the paroxysms of pain. Where they appear at long intervals, allowing the patient time to partially recover, this habit may be avoided; but where the patients suffer almost incessantly, or where the paroxysms repeat themselves at irregular short intervals, the patients nearly always acquire the morphia habit, the latter often being ignored both by the patient and the physician. I select, as an illustration, one of many similar cases which have come under my care at that stage of the disease.

Miss F., æt. 17, suffered from severe headaches since her tenth year. Her mother and grandmother have been always subject to attacks of sick headache, and it was presumed she had the same affection, aggravated by the inherited disposition. Her father is habitually intemperate. The attacks appeared first at considerable intervals, then became more frequent, and during the last three years the patient was scarcely ever free from headaches, which often increased to an unbearable severity. In her fourteenth year menstruation appeared with a great deal of pain, and since that time she has always suffered from dysmenorrhœa accompanied with intense headache. She was treated with bromide of potassium, guarana, cannabis indica, nitrite of amyl, etc., but morphia alone afforded relief, and was, therefore, always resorted to, at first per os, and afterwards hypodermically. During the last three years she was kept more or less under the influence of morphia, as it became absolutely necessary, on her awaking with intense headache, to make every morning a hypodermic injection of $\frac{1}{4}$ or $\frac{1}{3}$ gr. of morphia, after which only could she get up and take her breakfast. Whenever an attempt was made to omit the hypodermic injection she would be unable to leave her bed or take food, and the headache would become unbearable, last in an aggravated form during several days, a week or more, and resist even the increased doses of morphia. For the last four months she had regularly three hypodermic injections per day, and during the severe attacks of headache the doses of morphia had to be increased and the injections repeated several times during day and night. The patient, whom I examined for the first time Aug. 28, 1878, was brought to me for treatment by the family physician, Dr. Gibson. She was below medium size, very pale and delicate, flushed readily, felt weak, had little or no appetite, and was habitually costive. The pulse was small and accelerated, the skin dry, the tongue pale and coated. No fever. She had an incessant cough in consequence of a cold contracted about ten days before. Of late she had been catching colds very easily, which always called forth a cough that lasted a long time and was hard to get rid of. The principal seat of the neuralgic pain was the right supraorbital nerve. Except a slight bronchial catarrh, no organic affection could be detected. Her menstrual period passed a day or two before. It lasted, as usual, about a week, and was accompanied with intense dysmenorrhœa, making it necessary to keep her under the full influence of morphia.

Evidently, in this case, we had two indications, viz.: to treat the headaches and dysmenorrhœa, and to remove the morphia habit.

As a preliminary step the bronchial catarrh was treated by promoting the action of the skin. The patient was ordered warm drinks, mostly hot lemonade, which she found particularly pleasant, having a craving for lemons, the use of which was, however, prohibited before, but which I have always found beneficial in such cases. Besides a nourishing diet and out-door exercise, hydrochloric acid was prescribed after meals, and as soon as the bronchial catarrh disappeared and the digestion improved, iron was given. Every time I attempted to omit the dose of morphia, or even diminish it, the attacks of headache became so violent (with loss of appetite and sleep, and a complete inability to rise) that they had to be controlled by more frequent and increased doses of hypodermic injections. But, under the galvanic treatment and a tonic régime, her health grew better and the headaches became more manageable. Sept. 28th, menstruation returned with dysmenorrhœa and headache. Pulse small and contracted, face pale, expressing great agony. Like on all former occasions, it seemed indispensable to keep her under the complete influence of morphia; but I decided to abolish abruptly the morphia habit, and in order to do so substituted temporarily for this alkaloid another palliative—Merck's hyoscyamine—in small doses. Its effect was prompt, but appeared somewhat alarming, as the face became red, the eyes congested and protruding, the pulse full, the speech incoherent, though at the same time the pains entirely subsided. After a few hours this condition gradually wore off. Then she became troubled with optic hallucinations, all the

objects appearing distorted. She fancied herself surrounded by different animals, and dreaded their sight. She could not keep anything on the stomach, and incessantly asked for morphia. In the evening her condition looked quite alarming; terror-stricken with the hallucinations, without food, and with a filiform pulse, a collapse seemed inevitable, and I almost feared I should have to yield to her continual request and administer a small dose of morphia. However, under the influence of stimulants, her pulse grew stronger, she took some beef-tea, and fell asleep. Under reduced doses of hyoscyamine, for which were afterwards substituted larger doses of quinine, she gradually improved. The dysmenorrhœal pains and headache ceased on the third day, and her appetite improved. The next week I resumed the use of iron and the galvanic treatment, under which she rapidly recovered, had no headaches, could walk a great deal, and sleep without narcotics. Her next period came, for the first time in her life, without pain. She could go out daily during the menstruation, and felt quite well. She remained one month longer under my observation, and left New York for her home in perfect health.

In treating such inveterate cases of neuralgia we have to bear in mind the probable complication with the morphia habit. Generally the opinion prevails that with the cure of the headache or other suffering the necessity for administering morphia would cease, which, however, always proves incorrect; and in the case above related, the patient confessed later, that, even with the removal of the headache and dysmenorrhœa, she would have been unable to live without morphia, had it been left to her. In such cases, after ameliorating the general health, and modifying to a certain degree the severity of the neuralgic attacks, I discontinue abruptly the administration of morphia, and temporarily substitute for it some other palliative. In the above related case, the small, contracted pulse, the pallor of the skin, and the cold extremities, suggested the use of a remedy producing a contrary effect, and as nitrite of amyl had already proved unsuccessful, I selected the hyoscyamine; and should this have failed, I intended to try pylocarpine, which I have found useful under similar circumstances.

As already mentioned, the morphia habit most frequently accompanies inveterate neuralgias. I have had, however, several cases of neuralgia with ether habit, and some, more recently, with a habit of chloral.

Mrs. B. was placed under my treatment by her husband, a distinguished physician, in January, 1873. She was about forty-three years old, and mother of several healthy children. She had suffered for many years from severe headaches, which would not be controlled by any other remedy but inhalation of ether, which, therefore, had to be resorted to in every attack to alleviate the pain. Small quantities were at first sufficient, but soon the attacks recurred more frequently, lasted longer, and made it necessary to gradually increase the doses of ether until it became large enough to produce complete anæsthesia. I was called to see the patient during one of her attacks, and found her in a complete coma, with the face flushed. As soon as consciousness began to return she called for more ether, and grasped at the paper cone, pressing it to her mouth and nose until complete coma ensued. This was continually repeated during twenty-four hours, and even during several days. While the attack lasted the patient ate scarcely anything, and it generally took some time before she returned to her normal state. Under the galvanic treatment the attacks became less frequent and more manageable; but I explained to her husband that, unless the ether habit were given up, a radical cure would be impossible. Last year she had typhoid fever of a severe type, her life being in danger for several weeks. She, however, entirely recovered, and is now in excellent health, and perfectly free from neuralgia. No doubt the prolonged acute illness wrought a favorable change and was instrumental in her losing the ether habit.

Very frequently, persons suffering from severe neuralgias acquire the habit of alcoholic stimulants, which presents itself in two different forms. In cases where the attacks appear at long intervals, the patients intoxicate themselves to unconsciousness at the beginning of the attack, and for several days continue in that condition by taking more stimulants each time they arouse from it, and during the attack scarcely accept any food. They gradually recover, and remain healthy, perfectly abstaining from drink, until the next attack. This form may continue for years, until death is caused by pneumonia, cirrhosis of the liver, fatty degeneration of the heart, Bright's disease, or, still oftener, cerebral apoplexy induced by the degenerated cerebral blood-vessels. However, if the neuralgic attacks do not occur frequently, such patients may recuperate almost entirely during the intervals; but often, even if the neuralgic attacks entirely disappear in course of time, the habit of periodical intoxication remains and brings the ultimate fatal result.

As far as my experience goes, periodical inebriety is generally developed by two morbid conditions, viz., periodical attacks of severe neuralgia, and periodical melancholia, and although these exciting causes may ultimately cease, the inebriety remains permanently. In periodical melancholia there is every reason to admit an anæmic condition of the brain, at least of certain regions, caused by a spasmodic contraction of the blood-vessels.* The effect of alcohol counteracts it by producing a paralytic dilatation of the blood-vessels, thus temporarily relieving the morbid state induced by the vaso-motor spasm. Very probably similar conditions exist during the neuralgic attack.

The other form of alcoholic habit consists in the chronic poisoning of the system by the frequent or constant use of small doses. Its effect is often more deleterious than even in the first form; it undermines the constitution, constantly increases the severity of the attacks, and invariably leads to the incurability of the neuralgia.

Mrs. N., wife of a clergyman, thirty-eight years old, and formerly healthy, has been suffering for years with violent headaches. These attacks, which first appeared occasionally, soon became more frequent and more severe, and necessitated the use of large doses of morphia to produce complete narcotism. The pain was deeply seated in the back of the head and also behind the eyes, and often so intense that, to deaden it, she would strike her head against the wall. The after-effects of the morphia were exceedingly unpleasant, causing for several weeks a complete loss of appetite, of sleep, and strength, when a new attack would come on and leave the patient utterly prostrated. During the last years she scarcely had any intervals between the attacks, and ate almost nothing, and it was therefore often necessary to give her small doses of alcoholic stimulants to prevent fainting and collapse, which several times lasted so long

* Neftel: Ueber periodische Melancholie, Centralbl. f. med. Wiss. 1875, No. 22; Med. Rec., Aug. 14, 1875.

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as to threaten her life. I saw her for the first time January 31, 1872. She was greatly emaciated, the skin pale with a yellowish tint, especially the conjunctiva; the pulse small, with irregular intermissions; the respiration slow; the abdomen sunken in; the liver of very small size; the spleen enlarged. She was subject to looseness of the bowels and sore throat. Her hearing was much impaired; she could not hear a whisper or the ticking of a watch, and besides, had tinnitus aurium—singing and roaring. The examination with the galvanic current showed hyperæsthesia of the auditory nerve, with reversion of formula and paradox reaction of the unarmed ear. Under the influence of the cathode the noises ceased.

This patient was supported by small doses of sherry, brandy, or whiskey, as even the idea of food was sickening to her, and she had to make great efforts to swallow the smallest amount of anything. Being of a high moral character, she took the stimulants with repugnancy, to sustain life, at the recommendation of her physicians, in quantities of half a wineglass or more, and, though very often, yet with not the slightest intoxicating effect.

Neither the patient, nor her husband, nor even the attending physicians suspected that these small doses of alcohol could be injurious or produce the constitutional effects of chronic alcoholismus. But though the single doses were small and insufficient to cause intoxication, yet the quantity taken in twenty-four hours was very considerable, and the amount administered during the years of suffering was certainly enormous. In this case the alcohol was still more injurious, as it was taken with little food, and very often on an empty stomach. There was every reason to assume here a considerable degree of cirrhosis of the liver, of fatty degeneration of the heart, and an atrophic condition of the nervous centres.

The described cases selected from a large number of similar ones, show that severe neuralgic affections often become complicated with a morbid habit of morphia, ether, chloral, alcohol, etc. Accordingly, great discretion is required in prescribing narcotics as palliatives in chronic neuralgias, and in case of necessity frequent changes have to be made, never allowing the same narcotic to be taken for any length of time. Even if the pain can be entirely controlled by some narcotics, constant efforts must be made to discontinue entirely their use by curing the neuralgia with some other means. This is especially to be borne in mind in cases of alcoholic habit, and I find it absolutely necessary to insist that such patients abandon altogether the use of alcoholic stimulants, which always leads to a fatal result.

As in all other branches of practical medicine, the success in the treatment of neuralgias greatly depends upon the exactness of the diagnosis. By the latter, however, is not meant only the finding of a technical name, or even the determining of the affected nerves or nerve-centres, but also the detecting of all other constitutional and local peculiarities in each individual case. For instance, in severe neuralgic affections it is easy to diagnosticate a general anæmic condition, which, however, may be the result of various causes, and not always indicate the use of iron, quinine, etc. Where anæmia depends upon some affection of the digestive organs (chronic gastric catarrh, etc.), no amount of iron will do any good as long as the patient is unable to digest the necessary quantity of food. Again, where anæmia is caused by the derangement of the organs which prepare the blood (not the least important among which are the bones—medulla ossium), even a large amount of well-digested food cannot correct the abnormal condition of the blood. Every practitioner has met with persons who have good appetite and digestion, but nevertheless remain thin and bloodless.

The success of the cure therefore depends entirely on the exact diagnosis of the nature of the affection and its etiology, of which the following case, recently under my observation, affords an excellent illustration.

Mrs. S., a lady of about 46 years, consulted me Oct. 1, 1878. She is of a strong constitution, very well built, but for years has been suffering from abdominal pains, which at times become quite unbearable. For the last four years she has been unable to walk, partly from general debility, and also at the advice of her physicians, in order to avoid increasing the pain or calling forth an attack. Last year she was treated during five months by a distinguished physician and clinicist of this city for an assumed ulcer of the bowels, but no improvement followed. Then the pains were ascribed to a uterine trouble, but a prolonged local treatment gave no relief. A careful examination of the patient, made by me, revealed no affection of internal organs; the urine, however, showed traces of lead, and she then gave me for chemical analysis a cosmetic she was in the habit of using. I found that it contained over 90 grains of lead in the fluid ounce. It was evident that she had been suffering from lead-colic, and consequently all the methods of treatment employed previous to my diagnosis were useless, to say the least.

The galvanic current is the most efficient agent in the treatment of neuralgias; but here more than anywhere else, success depends entirely upon the method employed; an improper method may often prove altogether useless or even injurious, as for instance in the following case:

Mrs. D., 33 years old, suffered for more than fifteen years from most excruciating pains (like tooth-ache) in the left thumb. This pain interfered with her sleep and occupations, and rendered her emaciated, anæmic, and almost cachectic-looking. She was treated by most eminent physicians, but unsuccessfully, and was at last advised to have the (in appearance healthy) thumb amputated. Dr. Brown-Séquard, however, dissuaded her from having it done, as he considered it very doubtful if the operation would effect a cure. At the advice of Dr. Mussey, of Cincinnati, the patient consulted me May 15, 1873, and frankly said she expected no benefit from the galvanic treatment, having tried it three times before at the hands of competent specialists, and having always found the neuralgic pain aggravated by electricity. Notwithstanding the unfavorable prognosis, she was entirely relieved by me from pain in the course of one month's treatment with the galvanic current, left New York June 18th, and has never had a relapse.

The beneficial effect of the galvanic current in neuralgias is especially apparent in sciatica; even the intensest and most inveterate forms often yielding in a short time to the galvanic treatment.

The illustrations would be too numerous to be given in this paper, but I may add that the polar method, and the skilful use of the rheostat as an accessory current, will often be found of great value in the treatment of intractable neuralgias, especially of sciatica.

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Opium Habit and Amyl Nitrite.—Dr. Leyman (*Boston Medical and Surgical Journal*) has successfully used *amyl nitrite* in insomnia consequent upon suddenly discontinuing the opium habit. Two or three whiffs, the *flushing of the face being the criterion*, were usually sufficient, being followed by refreshing sleep.

## FOUR CASES OF EXSECTION OF THE HIP-JOINT,

WITH REMARKS,

By CHARLES T. POORE, M.D.,

SURGEON TO ST. MARY'S FREE HOSPITAL FOR CHILDREN, AND TO CHARITY HOSPITAL, NEW YORK.

In the May number of the *New York Medical Journal* for 1877, I published seven cases of exsection of the hip-joint. The following is a continuation of the series:

Case VIII.—Florence M., aged 5 years, was admitted into St. Mary's Free Hospital for Children, June 3, 1876, suffering from hip-joint disease in the second stage. But little account of her previous or family history could be obtained. Patient was put to bed, and absolute rest given to the joint.

In September an abscess was discovered on the anterior aspect of the thigh, just below Poupart's ligament; this was opened, and considerable pus, containing oil-globules, evacuated. The joint was carefully examined while the patient was under ether, but no roughness could be detected. The abscess continued to discharge, and in February a small piece of bone came away. Crepitus could now be detected. Appetite poor. Temperature high in the morning (102°), coming down to 99° in the evening. Discharge free and healthy. Some vomiting.

Feb. 12.—Joint excised. Section was made below trochanter major. The compact tissue at this point was of normal thickness and hardness. The trochanter major was almost detached from the shaft. About one-half of the head had disappeared, and there were loose pieces of bone in joint. Acetabulum perforated. The wound was closed, except opposite the acetabulum, into which a drainage tube was inserted, and the limb bandaged, so as to bring the parts intimately together, a space being left for the drainage-tube.

Feb. 17.—Since operation the temperature has been normal. The wound almost closed.

Feb. 24.—For the past two days patient has been in a semi-unconscious state. Can be roused. Pupils dilated and sluggish. Abdomen retracted. No albumen or casts in urine.

Feb. 29.—Patient gradually failed, and to-day died.

*Post-mortem:* Body much emaciated. On opening the skull the meninges were found congested. The sulci were filled with a semi-opaque gelatinous material which glued them together. At the base this material was more abundant. Small granular bodies were found along the course of the vessels, and the choroid plexus was studded with them.

The parts about the hip-joint look well. There was a small abscess cavity between the femur and the tendons of the adductor muscles.

Case IX.—Josephine G., 7 years of age, was admitted into St. Mary's, Feb. 19, 1876, with disease of the right hip-joint of some duration. Family history bad. She is a sister of Amanda G. (Case IV.); her father died of phthisis. She has a fair skin, light hair. A brace was applied, and she was about the hospital, seeming quite comfortable. She rested well at night. In Jan., 1877, there was found an elastic swelling over the trochanter major. On aspirating, it was found to contain a light straw-colored fluid, resembling synovia, or the contents of a bursa.

Feb. 16.—The swelling has greatly increased, and about ʒ iv. of purulent matter was removed with the aspirator.

Feb. 28.—Patient to-day etherized, an opening made just behind the trochanter major, and about ʒ viij. of pus evacuated. The cavity of the abscess was found to be very extensive, and to run up behind the trochanter towards the joint. The movements of the joint were smooth. A small piece of bone was found in the abscess.

March 20.—Since last date there has been considerable pain on pressure over the femur, more marked above the middle third, followed later by swelling, and an abscess (periosteal), which was opened at about the middle of the thigh. Crepitus could be detected on abducting the limb, when fully extended. Patient was losing ground. The liver was slightly enlarged. The joint was to-day excised. Section was made above the trochanter minor. The head of the bone was denuded and carious, as well as the upper border of the acetabulum; the ileum above and continuous with it was also diseased. The bone at the point of section was diseased, but on account of the condition of the patient it was not deemed safe to attempt any more. On microscopic examination of the cut section, the cancellous tissue was found filled with pus and oil-globules (osteo-myelitis).

Dec. 14.—Patient's general condition improved after the operation in all respects. The amount of discharge diminished, although it never entirely ceased. She was up and about with a long splint, walking some distance without any inconvenience. The liver continued to enlarge.

In January, 1878, another abscess was opened on the outer aspect of the thigh.

March 7.—To-day she was seized with intense pain in her stomach.

March 8.—T. 104°; pulse 160. When seen this A.M. she was vomiting; face pinched, and she complained of pain in her abdomen, which is tender on pressure, and tympanitic. Ordered morphia every hour.

9 P.M.—T. 102°; pulse 130; respiration 36; is sleeping.

March 9.—Patient continued to fail, and died this morning.

*Post-mortem.—Abdomen:* On opening the abdomen the intestines were found to be perfectly white, as though they had been bleached, and on first inspection there did not seem to be any effusion; but on close examination the omentum and intestines were found to be covered with a creamy substance; but they were not glued together. There was considerable turbid serum in the peritoneal cavity. There was no perforation.

*Liver* greatly enlarged.

*Kidneys* enlarged and flabby; their surface irregular.

*Femur* did not present anything abnormal. The periosteum seemed to be healthy, and firmly attached to the bone. There was caries about the acetabulum, but not very extensive. There was also considerable bony growth on the ilium.

Case X.—Frances M., aged eight years, was admitted into St. Mary's Hospital, July 14, 1877, suffering from hip-joint disease in the third stage. Her brothers and sisters are healthy, as well as her parents. Three years ago she had scarlet fever, followed by an abscess in left breast. Five months ago patient began to walk lame. This difficulty in going about has gradually increased, so that for the past six weeks she has not been able to walk. During the last four weeks she has had starting pains at night, and has lost much flesh. For the past week there has been considerable swelling of the thigh. Patient is pale, rather thin, and not a healthy-looking child. Has disease of the right hip-joint, with a large abscess on the outer and

anterior aspect of the thigh. There is marked crepitus in the joint.

Shortly after admission the abscess was aspirated, and in August was freely opened.

Sept. 18.—As the patient seemed to be losing ground, the joint was excised. The upper rim of the acetabulum was deeply eroded. The head of the bone was diseased; the cartilage was completely detached, except at one point, and simply covers the head like a cap. The bone under it showed marked signs of osteitis. Section was made above the trochanter minor. At this point the bone was healthy. Wound united, except opposite the acetabulum. Drainage tube inserted, and limb bandaged.

By the middle of October the wound had closed, except a small sinus, from which there was a slight discharge. Later, as there seemed to be some retention of pus, the sinus was dilated, and it was then found that the shaft of the femur coming in contact with the upper border of the rim of the acetabulum did not allow a free exit for the pus. The rim was also slightly carious. This was scraped, so as to allow a drainage-tube to be inserted. In May the tube was discontinued, and the sinus soon closed.

Patient was discharged October ——, with the wound sound; no sinus. She can flex, extend, abduct and adduct, and rotate the limb. Shortening, three-quarters of an inch.

Case XI.—James F., aged five years, was admitted into St. Mary's Hospital, October 24, 1877, suffering from hip-joint disease in the third stage.

His parents are healthy. He became lame when two years of age, and seemingly recovered. After a time he again became suddenly lame.

In January, 1875, an abscess formed. At time of admission there was a profuse discharge from several openings about the hip-joint, and in the upper part of the thigh. He was much debilitated from the constant discharge.

No albumen; no enlargement of the liver.

Dec. 7, 1877.—He was etherized, and the joint excised. All the tissues were separated from the trochanter major, and the head had almost entirely disappeared. The shaft below the trochanter was so soft that a probe can readily be thrust into it. The periosteum was easily detached. Section was made at about the union of the middle with the upper third. The bone at the point presented the same softened condition. A second section was made a little lower down, but only to find the bone diseased. On one side the compact tissue seemed to be more invaded by this softening process than on the other, where the bone seems harder. The bone about the acetabulum was extensively diseased.

Dec. 14.—Discharge much lessened. Patient's appetite has improved, and he has gained in flesh.

March 26, 1878.—Patient continued in fair condition for some time; then he began gradually to fail, and to-day died of pure exhaustion. For some time back the limb has been getting stiffer, and there has evidently been considerable reproduction of bone.

*Post-mortem.*—There is found to be a reproduction of bone from the point of section just above the middle of the thigh to the acetabulum, over three inches. There is extensive disease about the ilium.

Remarks.—I desire, in connection with the above cases, to draw attention to the cause of death in disease of hip-joint; (a) *tubercular meningitis;* (b) *amyloid degeneration;* (c) *exhaustion.*

Case VIII. died from tubercular meningitis.

Case IX. died directly from peritonitis, secondary to amyloid degeneration.

Case X. recovered, and case XI. died from pure exhaustion.

Tubercular meningitis is not an unusual cause of death in hip-joint disease. It may occur at any time in the course of the joint trouble. Thus, a few years ago I lost a child, five years of age, suffering from coxalgia in the second stage from this complication. That this form of meningitis is one of the manifestations of the tubercular diathesis is too well recognized to require any further notice, except that its frequent occurrence in the course of hip-joint disease points strongly to a constitutional element in the causation of the latter trouble.

Case IX. died directly from peritonitis, secondary to amyloid degeneration of the liver and kidneys—a recognized termination of the latter disease. (Grainger-Stewart, Dickinson, Bartels.)

In this connection I desire to draw attention to Case XI., where death was due to pure exhaustion. The enlargement of the liver in the first case (IX.) came on several months after the formation of an abscess, while in the latter case (XI.), although the patient had suffered for *three years* from profuse suppuration, yet the abdominal organs were not affected, the patient dying from *pure asthenia.* If amyloid degeneration is due to suppuration alone, why should it appear so early in one case, and not at all in the other? I have a patient at present under my care where the enlargement of the liver was coincident with the appearance of a large abscess.

If we look a little further into the histories of these patients, we find: that Case IX. was a sistert o Amanda G., Case IV.; they both had fair skin, light hair, and that peculiar cast of features that belongs to the strumous diathesis, so called; and that their father died of PHTHISIS. The patient in whom the enlargement of the liver was coincident with the formation of an abscess, lost his father from *acute phthisis,* whereas Case XI. gives a *good family* history as far as relates to tubercular tendencies.

Bartels, in his article on amyloid degeneration, in Ziemssen's Cyclopædia, Vol. XV., page 498, states that amyloid degeneration of the kidney "*is invariably the local manifestation of a general constitutional disease;*" and again on page 499, "as such constitutional predisposing anomalies, I may specify scrofula, chronic tuberculosis, inveterate and hereditary syphilis." Amyloid degeneration has followed suppuration in Cases II., V., VI., VII., IX., and XII.; in all of these cases there was an hereditary history of tuberculosis. In Case I., although the disease had lasted *six years,* and there had been profuse and long-continued suppuration, no change in the liver and kidneys could be discovered, and he made a perfect recovery after the diseased bone had been removed. There was *no* history of tubercular disease in the family. Case X. gave a good family history, and made a good recovery. Case III. died from phthisis; I regret that I have no record of the state of the liver. Gibney, in his paper on "The Strumous Element in the Etiology of Joint-Disease" (*New York Medical Journal,* July and August, 1877), comes to the same conclusion. Dickinson, in his work on "The Pathology and Treatment of Albuminuria," London, 1868, page 172, states "that depurative disease of the kidney is not necessarily connected with the tubercular or any constitutional taint;" yet of the five cases reported in illustration of the disease, in three the disease followed suppuration in connection with bone trouble in patient giving a *tubercular family* history, and two gave a history of syphilis.

Grainger-Stewart, "Bright's Disease," 191, etc., re-

ports six cases connected with the tubercular diathesis. From a careful study of my own cases I am forced to the conclusion that the tubercular diathesis is a, if not the, predisposing cause of amyloid degeneration in suppurative disease of the hip-joint. A review of fatal cases of joint disease, scattered throughout the medical journals, confirm me in the opinion above expressed. I do not wish to be misunderstood. I do not state that hip-joint disease in patients of a tubercular diathesis is *always* followed by amyloid degeneration, but I desire to express the opinion that it is seldom found except in those of the above diathesis. It would seem, then, that the question of the treatment of suppurative coxalgia cannot be separated from a consideration of the possibility, nay more the probability of the occurrence of amyloid degeneration in patients of a tubercular diathesis.

Medical writers speak very discouragingly of the treatment of amyloid degeneration. Thus Stewart, in reply to the question, "Is it ever recovered from?" states: "No case is on record in which so happily an event has occurred, but I have seen several in which the symptoms were well marked, and yet signal improvement took place," page 179.

It is true that these changes may occur independent of any suppuration or disease of bone, yet they are too often seen to follow chronic purulent discharge to permit us to ignore it as an exciting cause of this very serious complication.

If we are correct in ascribing death, in the majority of cases of suppurative coxalgia, to amyloid degeneration, the question naturally arises, Can we do anything to prevent its occurrence? We cannot cure it.

Murchison, in his work on "Diseases of the Liver," makes the following statement in speaking of the preventive treatment: "First and foremost, it is always advisible to arrest as early as possible copious suppuration from any part of the body, and in particular from diseased bone;" all other writers upon the subject express the same views. The preventive treatment of amyloid degeneration, then, is to reduce or stop suppuration as soon as possible.

It is claimed by those who decry operative interference in cases of disorganization of the joint, with carious and necrotic bone, that the results of excision in these cases are not as good as after strictly mechanical treatment; that the rate of mortality is due to excessive suppuration incident to the operation, and that exsection does not stop the disease.

In order to form sound conclusions in regard to the treatment of hip-joint disease, mechanical or operative, a practical knowledge of *first*, mechanical treatment, *secondly*, of exsection, is requisite.

For how can one criticise an operation of which he has no practical knowledge?

Exsection does not as a rule increase the amount of suppuration, at least I have not found it so in an experience with twelves cases. In all, there has been a decided improvement in the general condition of these patients; they have slept better, their appetite has improved, they have increased in flesh, and they have had a better color. It is true that this improvement has not, in some cases, lasted for more than a few months. If, then, there has been a marked amelioration in their condition, lasting for months, on what fair grounds can the operation be said to have been the cause of, or to have hastened a fatal issue? The truth would seem to be, that these patients die not *from*, but in *spite* of the operation.

Another objection is, that the operation does not stop the disease. Does mechanical treatment? It is claimed that the results of excision in these cases are not as good as after strictly mechanical treatment. In order to compare the results of any two modes of treatment, one of the first requisites is the comparison of the termination in similar cases. I have been unable to find, after a careful search through the medical journals, any account of the result of mechanical treatment in cases where there was carious or necrotic bone in the joint. It is true that at a recent meeting of the Surgical Section of the Academy of Medicine (MEDICAL RECORD, April 13, 1878), Dr. C. F. Taylor presented some statistics; and as they seem to be the only ones available, I desire to refer to them. He says: "Out of 94 cases of morbus coxarius, three had died from the disease, a rate of 3¼ per cent. In a certain sense these were *selected*, because he would not undertake the treatment of any case unless he could have it under his exclusive control. The representation, therefore, is *better than it would have been* had it been based upon *all cases* which *applied* for treatment. . . . . Twenty-five had abscesses, either extra- or intra-articular; of the suppurating cases, two, or eight per cent., died. . . . . Dr. Taylor remarked that he had no right to report, except upon the cases which remained under observation."* The questions naturally arise, How many cases passed from under his control? What was their condition when they ceased attendance, and what has been their termination? Of the twenty-five suppurating cases, how many had *intra-capsular* abscess, and in how many did there exist carious or necrotic bone; and of those passing from under his control, how many belonged to the latter class? It would also be interesting to know what the expression, "in a certain sense these were selected," means, and what class of cases were excluded. If those gentlemen who are advocates of a strictly mechanical treatment will give us some reliable statistics of the results in advanced stages of hip-joint disease, so that the facts can be known, much will be done to advance our knowledge of the treatment of hip-joint disease, and the claim that better results are obtained in these cases by mechanical treatment than by operation, will rest on broader ground than a mere statement, unsupported by scientific evidence.

I cannot see that the gentleman's statistics afford us any aid. In a paper read before the Journal Association by Dr. C. F. Taylor, February 1, 1878, he asks the following question: "Could exsection be depended upon, and could any determinate result be expected by its performance?" With equal force the question might be asked, Could strictly mechanical treatment be depended upon, and could any determinate result be expected from its continuance after the joint has become disorganized and carious, or necrotic bone is present?

The real question seems to be, does exsection improve the general condition of the patient; if it does, it certainly gives him a better chance to recover, and on this hinges the advisability or not advisability of operative procedure. If suppuration from carious bone is profuse, notwithstanding mechanical treatment, we must expect in a certain class of cases, changes in the abdominal viscera; and when it can be proved that mechanical treatment is able to cure amyloid degeneration, then, and only then, can the question of exsection be dismissed from our consideration.

The reproduction of bone after exsection is sometimes astonishing, even in those cases that terminate fatally. Thus in Case XI. there was fully three inches

* The italics my own.

of bone reproduced, notwithstanding the debilitated condition of the patient.

A reference to the case of Rosa Mullen, reported by Dr. Sayre, is also one in point as illustrating the fact that a patient may recover after exsection, yet die from amyloid degeneration long after. The question raised by Dr. Taylor in regard to this case, "What right had a surgeon to assume such wonderful reproductive power would not take place under other forms of treatment as well as after excision?" is not to the point unless it can be demonstrated that the tendency is towards recovery in extensive disorganization of joint with the presence of grave bone lesions. The fatal termination in this case was not from hip-joint disease, but from constitutional trouble. I have seen osteophytes about a diseased joint, but I am not aware of any specimen illustrating any marked reproduction of bone or any significant attempt at repair while there was present carious bone in the joint, and I do not think that an inspection of the pathological museum will show one. As long as there is dead bone in a joint, so long will suppuration continue, and until the irritation of its presence ceases, reproduction cannot go on. As soon as there is dead bone in a joint the articulation as a joint is destroyed, and the general rules of surgery are as applicable to it as dead bone in any other situation.

Quite recently my friend Dr. Gibney showed me a specimen removed from a boy sixteen years of age, with a tubercular family history, who had had disease of the hip-joint, and had recovered with anchylosis, but who had died from amyloid degeneration. The head and neck have disappeared, and the shaft of the femur was fused with the acetabulum. A word in regard to recovery from amyloid degeneration. In a former paper I expressed the opinion that James C., Case VI., who had an enlarged liver, and albumen in his urine before the operation, would not recover. It is now two years and a half since the operation; the liver is now reduced to almost its normal dimensions, he has regained a good color, and his general condition is excellent. I am not prepared to claim that this is a case of recovery, but shall watch it with interest. There has certainly been a marked improvement.

In the *Lancet* for November 2, 1878, a case is reported by Mr. Gay, where the liver diminished to its normal size, and albumen disappeared from the urine, after secondary amputation at the hip-joint subsequent to exsection.

To recapitulate, cases I., II., VI., and X. are alive. Nos. I. and X. have recovered. No. VI. has recovered as far as the joint is concerned, and the liver has almost assumed its normal dimensions; still I mark it doubtful.

No. II. is alive, but with no prospects of recovery.
No. III. died from phthisis.
No. IV. from heart clot?
No. V. amyloid degeneration.
No. VII. " "
No. VIII. tubercular meningitis.
No. IX. amyloid degeneration.
No. XI. from pure exhaustion.

Not any of the fatal cases, except No. IV., died from causes connected with the operation, nor do I think that the fatal termination was in any way hastened by it. In those that recovered I do not think, from the histories of these patients and the course of the disease while under my care, that a cure was probable without exsection.

The following conclusions may be drawn from the above:

1st. That the causes of death directly traceable to coxalgia are amyloid degeneration, tubercular meningitis, and exhaustion.

2d. That there is an intimate connection between the tubercular diatheses and amyloid degeneration, so that those of this predisposition seem peculiarly liable to this complication subsequent to suppuration in connection with diseased bone.

3d. That exsection does not, as a rule, increase the amount of suppuration.

4th. That death is not as a rule due to, or hastened by exsection.

5th. That the removal of carious or necrotic bone from the hip-joint is followed by an improvement in general condition of the patient, and that the chances of his recovery are improved thereby.

6th. That in patients of a tubercular diathesis, the question of excision should earlier be taken into consideration than in those of a non-tubercular diathesis.

7th. That repair in a joint after excision is no proof of the non-existence of amyloid degeneration.

## REMOVAL OF A PESSARY FIRMLY IMBEDDED IN MUCOUS AND FIBROUS TISSUE.

By FRANKLIN B. SMITH, M.D.,
of FREDERICK, MD.

It is an every-day occurrence for a practitioner to be called upon for the relief of uterine trouble, to apply a pessary and leave the patient go her way without caution or instruction, maybe never to be seen by the same medical man again. One of the injurious consequences of this practice is well exemplified in the following case which lately came under my charge, and which for its practical teachings deserves publication:

M. D., a woman ætat. 35 years, was compelled to stop work on November 1, 1878. On the 20th, being called, she was found suffering with the following symptoms: dragging and sense of weight in the pelvis, inability to do hard work or to walk any distance without provoking colicky pains in the abdomen, difficulty and pain in micturition. On examination the uterus was found prolapsed, the os appearing at the vulva, while encircling the uterine globe opposite the pubes appeared a firm, hard, constricting band of mucous membrane projecting from the vaginal walls. This was the case anteriorly and on the sides, but upon being traced back ended in the free surface of a retroversion pessary. The uterus was now with some difficulty pushed above this and a more careful examination made. The whole anterior and lateral portions of the pessary were covered with or embedded in the mucous membrane of the vagina, and resisted any movement.

As the pessary had moved somewhat from its original position, had lost its use and prevented any treatment for the prolapse so long as it remained, I decided to remove it.

On November 21st I cut off the posterior portion of the pessary, by means of a pair of bone-pliers, in the vain hope of being able then to withdraw the remainder by simple traction on one of its ends, but in this I was disappointed. The pessary opposite the pubes was deeply and firmly embedded, not in mucous, but in fibrous tissue, nor could it be moved the slightest particle. A bivalve speculum was then introduced, and in it I held a laryngoscopic mirror; then with a lancet, the fleam of which was at a right angle to the

handle and stem, cut directly down upon the pessary, rotating the interspace between the valves as I cut. In this way I succeeded in exposing the pessary throughout its whole extent, except just at the pubes, where the anterior portion of the pessary (an Albert Smith's) was so deeply embedded as to resist all the force I could in this disadvantageous manner bring to bear upon it. The patient being tired and worried out with the pain, and considerable time having been expended, I desisted, determining to resume under ether the following day.

On the 22d, with the assistance of Dr. Charles Smith, after the patient had been anæsthetized, while one of the ends of the portion remaining was firmly held by means of a sequestrum forceps, I carried the lancet guarded by my fingers into the vagina until it rested upon the resisting bands. These, after some difficulty, were severed, when, after some traction, the anterior portion was removed. The instrument proved to be an Albert Smith hard rubber retroversion pessary, remodelled by lengthening at the expense of its width. It was the anterior portion which had first caused the ulceration and subsequent embedment. The only history obtained was that four years ago she had suffered with "womb disease," had applied to a physician for relief, had been relieved, and had suffered but very little from that time until lately. The patient did well, and subsequently was treated for the prolapse.

## A FILARIA IN THE EYE OF A HORSE.

By CHARLES J. KIPP., M.D.,

NEWARK, N. J.

About a year ago I was requested by Veterinary Surgeon Lawrenz, of this city, to see with him a horse which, as he said, had a live worm in one of its eyes. I hastened to the place, and, to my great astonishment, found the case as represented.

The horse was estimated to be over twelve years of age, and was in good condition. From the owner I learned that he had first noticed a slight inflammation of the eye about six weeks before. Two weeks later a "film" came over the eye, and, on closer examination, a white worm, about an inch long, was seen wriggling about in the eye. Since then no marked change has occurred.

On examination, the eye was found to be intolerant of light, and apparently blind. The ocular conjunctiva was injected, and the entire cornea was so hazy that the texture of the iris could not be made out. The epithelial layer of the cornea was perfectly smooth and regular. The pupil was contracted and inactive; but no posterior synechiæ could be made out. The anterior chamber was very deep, and in the aqueous, which was slightly turbid, was seen a white, cylindrical worm, apparently about seventy-five (75) millimetres in length, and of about the diameter of a violin-string. The worm was in constant violent motion. The tension of the eye was apparently somewhat increased, as compared with the sound one.

I proposed to make at once a paracentesis of the anterior chamber, for the purpose of removing the worm, but, at the request of the owner of the horse, deferred the operation for several days. At the next visit the eye was found to be still in the condition described. I then, in the presence of a number of physicians, made, with a straight, lance-shaped knife, an incision about four millimetres in length in the outer half of the cornea, about midway between the centre and the periphery, and, on withdrawing the knife, the aqueous, and with it the worm, escaped from the eye. I ordered the horse to be kept in a dark stable; applications of cold to the lids, and instillations of a one per cent. solution of sulphate of atropia. Of the subsequent history of the case I have no personal knowledge, as I have not seen the horse since; but from Dr. Lawrenz, who saw the animal again some six months ago, for the first time since the operation, I have recently learned that the owner disregarded our advice, and drove the horse some twelve miles immediately after the operation; and that, although no inflammatory reaction followed the operation, the eye has gradually become atrophic.

The worm was placed in a warm, weak solution of salt, and kept alive for nearly twelve hours; since then it has been preserved in weak alcohol. It was my intention to submit the parasite to an examination by an expert in helminthology, immediately; but the matter was entirely forgotten till a few weeks ago, when I saw an article on "Filaria in the Eye," by Dr. Charles S. Turnbull, published in the *Philadelphia Medical and Surgical Reporter*, October 26, 1878. Since then Prof. J. C. Dalton, of the College of Physicians and Surgeons, New York, has had the kindness to examine the worm, and his report is as follows: "The parasitic worm you left with me for examination is cylindrical in form, and of a white color. It is 65 millimetres long, and 0.3 millimetre in diameter. The head is bluntly rounded; mouth terminal, with several small surrounding tuberosities. The specimen is a male, with the tail obtusely conical and twisted in two and one-half spiral turns. There is one very long copulatory spicule. I could not distinguish a second one, nor any membranous expansion or envelopes about the generative organs. With these two last exceptions, the characters of the worm are those belonging to the genus Filaria; but I cannot determine its species, and doubt whether it has been fully described in any of the standard works on herminthology."

The parasite was exhibited by me to the members of the New York Ophthalmological Society, at the meeting in January, 1878.

Filaria in the anterior chamber of the horse are very frequently seen in some parts of India (Macnamara, *Diseases of the Eye*, 3d Ed., London, 1876, p. 856); and Sichel, *père*, has seen many cases of the kind in Europe (*Compte-Rendu du Congrès Ophthalmolog. de Bruxelles, par Warlemont*, Paris, 1858, p. 155).

In this country this disease appears to be of rare occurrence, judging from the very small number of cases on record. Dr. Turnbull, in the paper already referred to, says that he made a diligent search through the American journals, and found the record of but a single case; to this he adds one observed by Dr. Corbyn, and another recently seen by himself.

In only one of these three cases (Dr. Corbyn's) was the worm removed from the eye; but no anatomical description of the parasite has been placed on record.

With regard to the manner in which the worm enters the eye various theories have been advanced, the most plausible of which assumes that the ova, found in the stagnant waters of India, and doubtless also in this country, find their way into the animal's body with the water he drinks, and are then carried with the blood into the eye.

Macnamara (*Op. cit.*, p. 356) says that entozoa in this situation excite violent inflammation of the iris and cornea, and probably abscess of the eyeball, unless they are allowed to escape from the eye. This may usually be effected without difficulty by puncturing the cornea with a narrow-bladed knife, which

is rotated edgeways as it is withdrawn from the eye, allowing the aqueous to escape with a gush, and with it the entozoa.

In the human eye a similar parasite has been seen twice in India by Macnamara (*Indian Annals of Medical Science*, No. XVI., p. 405), and a few doubtful cases are recorded by Quadri, Mauthner, and Davaine. No case of the kind has been published in this country.

# Reports of Hospitals.

## BELLEVUE HOSPITAL.

### PNEUMONIA: NOTES ON MORTALITY, TREATMENT, ETC.

Hospital pneumonias form a class of diseases especially liable to elude statistics regarding fatality and treatment. At least this is the case in the city hospitals of New York. The patients affected are of many nationalities and have been subjected to an infinite variety of, in general, bad hygienic conditions. Probably Bellevue receives about as bad a set of cases as any institution. The histories of these cases, however, furnish a good many interesting facts, especially as it is of acknowledged importance to study the local characters of acute diseases.

The majority of the patients brought to Bellevue trace their pneumonia to exposure. Sometimes this has been the sequel of alcoholic excesses; but it is not often so, and there must be innumerable debauches under unhygienic conditions that are not followed by this disease. If there is one well-determined cause, it is immersion. Every interne can relate the histories of patients who have fallen or thrown themselves into the water, have been fished out, brought to the hospital, and next day have developed pneumonia. It is difficult to say how the "germ" of the infectious disease pneumonia happens to get into the system so patly with the immersion. It is asserted that the pneumonia is catarrhal in these cases, or that the system was already infected, or perhaps the germ is amphibious.

It is not rare for hospital pneumonias to be complicated; but, as complications themselves, they are not often seen. Out of nearly a hundred cases occurring within the past two and a half years, twenty-two had complications, while six more were double pneumonias, and eleven were eminently alcoholic in cause and character.

At least three times as many males as females are admitted with the disease. Among 96, only 27 were females. The patients come in on the third or fourth day of their sickness, and the majority of them are between the ages of 30 and 50 years.

In regard to the mortality of the patients with pneumonia, and its causes, the histories of hospital-cases are of considerable interest. It is well known that the percentage of mortality varies in different years, in different climates and epidemics, and possibly under different treatments. There are statistics giving death rates of only .03 or .05 per cent. The more common ones run up to from .14 to .24 per cent. Bellevue Hospital presents the exceptional pathological advantages of a death-rate somewhat larger still, amongst over a hundred cases that occurred within the past two and a half years.

Of the 29 who died, 8 had complicating diseases, while 5 were alcoholic cases, and 3 were double pneumonias. This would perhaps account for the mortality in sixteen. On the other hand, of those who recovered, 16 had complications, many of them quite severe. Besides these there were 6 alcoholic cases and 3 double pneumonias which recovered, making in all 25 patients who were brought through conditions especially serious.

The mortality was somewhat greater among the males than the females, being three or four per cent. more for the former.

The date of admission was about the same for those who recovered and those who died. This appears somewhat strange, as the patients nearly all keep at work or lie neglected and exposed till the disease is well on them, and this is generally reckoned a factor in the death-rate.

The largest number of cases (32) were between the ages of 30 and 40; the largest number of recovcoveries were also in that decade. The largest mortality was between the years 40 and 50. Ten of the deaths occurred then, which is nearly twice as many as in any other decade.

The pneumonias were located most frequently in the left lower lobe. There were 27 there to 19 in the right lower lobe. On the other hand, there were 10 in the right apex to 8 in the left. The sufficiently well-established fact that apex-pneumonias are the most dangerous is confirmed here. Of 13 apex cases, 5 died; of 48 where the disease was at the base, 12 died.

The great mortality at Bellevue is due largely to the character of the cases sent there. They are often persons saturated with alcohol, and prostrated with neglect. It could hardly be from the complications directly, for only two or three had such as have not been recovered from often. Neither could much be laid to the treatment, for it is not dangerously experimental, so that it is difficult not to refer some of the mortality to the malignancy of the disease. Patients come in trembling with alcohol, wandering in mind, with high fever, and, perhaps, pleurisy complicating, or with the pneumonia double; yet they get well. At other times, persons who have been strong and temperate, wilt down before the disease in forty-eight hours. There is something almost appalling in the way with which at times case after case is attacked and succumbs. The fever is not very high, the lung not extensively involved; it is impossible to suppose that the heat has paralyzed the heart; yet the heart does become paralyzed, œdema of the lung comes on, and death ensues.

On only one post-mortem is there a record of an antimortem clot in the right heart. In this case the thrombus was diagnosed, and death predicted twenty-four hours before its occurrence.

Ten years ago pneumonia was quite uniformly treated with carbonate of ammonia internally and an oil-silk jacket externally. The carbonate was given in doses of gr. v. every three hours, or sometimes gr. x. three times a day. The muriate was occasionally substituted. Gradually quinine came to be combined with the ammonia, while now quinine has quite taken its place in many wards. The quinine is given in doses of gr. x. three times a day, increased or diminished according to the fever. The oil-silk jacket is still continued, and if there is much pain in the side, a coat of iodine is ordered. This, with an absolutely recumbent posture, is all that is enjoined in many cases. Aconite has been used in five cases, of which one died. It is given in doses of ℥i. every hour, till some effect of the drug in relief of dyspnœa, fever, or production of sweating is produced.

In forty-four cases quinine was used with good results. The method of administration is varied. Besides the routine mentioned, it is given gr. i. every hour, or gr. v. every four hours, and often, as directed by the Juergesen, gr. xl., or gr. l., in one dose, then discontinuing it for a day or more. The antipyretic effect of quinine is not sufficiently marked to have made it clear which is the best way. Cold sponging has been employed with quinine. Of seven cases so treated, three died. The gradually cooled bath has been used, and at once given up.

Owing to the previous bad habits and bad condition of the patients, as well as to the frequent virulence of the disease, the treatment of many cases of pneumonia soon resolves itself into the treatment of exhaustion, œdema of the lungs, and a nearly moribund condition.

How to carry a patient through critical conditions of this kind, how much stimulus, and what kind, are matters that text-books do not give very definite accounts of, and experience has generally to become the teacher.

Many cases that come into the hospital have a record like the following: The patient is a tolerably strong man, in the third day of the fever. He has a temperature of 104°, respiration 50. His pulse is very good, and he feels pretty confortable. He is given milk and eggs, and gr. xv. of quinine. This is in the morning. In the afternoon he is weaker, his face is a little blue, he breathes faster. On listening to the lungs, moist râles, fine and coarse, are heard. He is beginning to have œdema. He is at once dry-cupped for fifteen or twenty minutes, during which time 150 cups are put on. The œdema has now disappeared. He is ordered ℥x. of tr. digitalis every three hours, and ʒ ss. of whiskey every two hours, with milk and eggs. He continues better for some hours. Towards evening the œdema again shows itself. He is again cupped, and gr. x. ammon. carb. is ordered every two hours, alternating with the whiskey. Again the œdema clears up. In addition, a can of oxygen is ordered for the night, and the patient inhales it for fifteen minutes in every hour. This relieves his dyspnœa. But towards morning the cyanosis and œdema again appear. The cups are applied again, and the whiskey ordered, ʒ ss. every hour, alternating with the ammonia, gr. x., every hour. By these measures he is carried through the night, and in the morning is easier. Nourishment in the form of milk is still kept up. He is not allowed to sleep continuously, for during sleep the œdema comes on. By such fighting as this, the greatest reliance being placed on whiskey, milk, and dry cups, a patient is occasionally brought through. If, on the following day, he is still worse, the resources in the way of stimulants are not exhausted. Other forms of ammonia are used. Hypodermic injections of camphor dissolved in sweet oil are given every three hours in four-grain doses. If the patient has persistent œdema and a full pulse, venesection is tried, and is invaluable when digitalis and cups no longer avail. The oxygen cannot be pushed too much, as it causes unconsciousness.

Hypodermic injections of ether to the amount of one or two drachms sometimes bring up the pulse. Teaspoonful doses of champagne every five minutes will help to tide a crisis. There is a limit to stimulation, of course. When ʒ ss. of whiskey every half-hour has no effect the patient will die. There is no use in increasing the amount unless it is desired to preserve the stomach afterwards. In the case of a man to whom ʒ ss. q. ½ h. was given for several hours, the stomach was found at the autopsy to be considerably hardened by the alcohol and to smell strongly of it.

In spite of all efforts, most of the cases in which œdema of the lungs occurs go on from bad to worse. The extremities become cold and wet with perspiration; hot bottles applied to them and to the breast, mustard to the epigastrium, accomplish only temporary good, the patient has long been stupid; he now loses consciousness, his breath is slow and labored, the air-passages are full of serum; gradually the respirations grow slower and slower, and finally stop. The patient dies. At the autopsy part of the lung will be found to have reached the stage of gray hepatization.

It will be seen that no new or specific treatment can be deduced from these cases. It has become a firmly rooted belief that quinine is a good thing to give, and in those so treated the mortality has been somewhat diminished. The class of patients is not one upon which cardiac sedatives can be fairly tried.

## Progress of Medical Science.

Battey's Operation.—An unsuccessful case of this operation is reported by Dr. Prince, of Jacksonville, Ill. The procedure was proposed for the relief of hystero-epilepsy, from which the patient had been suffering for eighteen months, and which was gradually destroying her mental balance. The girl was eighteen years of age, and was apparently healthy up to the inception of this trouble. The paroxysms could be partially or completely controlled by pressure of the hand in the iliac region, at first upon the left side, later upon the right. The operation was performed according to Battey's original plan, by an incision through the vagina. The ovaries were brought down without any difficulty, and their attachments divided by the galvano-cautery; no bleeding following. Immediately after the operation the patient was put sufficiently under the influence of opium to control the spasmodic manifestations. Next morning there was vomiting, which appeared again in the evening, this time of a spinach-green color; pulse 140, temp. 101½°; morphia continued. On the third day, temp. in axilla 106°, in rectum 108°; pulse 160; breathing stertorous; eyes divergent; unconscious. She died towards the end of the fourth day. At the autopsy only the abdomen and pelvis were examined. "There existed about an ounce of blood coagulum (without odor) in the pelvis. There were no indications of pus or false membrane, and no coloration as would occur from inflammation. The incision in the vagina had healed by first intention. The death was, therefore, neither by inflammation nor by poisoning, but probably by the exhaustion of a hystero-epileptic acmé."—*The Obstetric Gazette*, December, 1878.

The Use of the Midwifery Forceps.—In applying the forceps to the fœtal head above the brim, but little attention is ordinarily given to the manner of seizing it; most practitioners believing with Barnes that it makes, practically, but little difference to which diameter the instrument is applied. Dr. Whitehead, of Denver, however, maintains that in shortening of the conjugate diameter of the mother's pelvis, judiciously-timed compression of the bi-parietal diameter of the child's head will frequently obviate the necessity of resource to craniotomy; and, moreover, as compression of the oblique or occipito-frontal di-

ameter would only serve to increase the bi-parietal, he urges the conclusion that the only safe use of the forceps for the child above the brim is in seizing and fixing the head until it engages. Much of the hard pulling so often required in cases of simple uterine inertia in normal pelves to draw the head through the brim, is largely due, he thinks, to the oblique seizure of the head. Especially should a powerful compressive instrument, such as Hodge's or Wallace's forceps, be used. He has always given the preference to Simpson's forceps.—Reprinted from the *Transactions of the Colorado Medical Society*, 1878.

Analysis of One Thousand Consecutive Midwifery Cases.—Dr. Thomas Newman publishes in *The Lancet* (December 14, 1878) an analysis of one thousand consecutive cases of child-birth, occurring in an agricultural district. Of the total number of children born (1013), 518 were males and 495 females. Twins occurred nine times; triplets twice. The breech presented in fourteen cases; the arm in two; the face and the feet, each in six; the head and one hand nine times. The placenta was adherent in eleven cases; two cases of hour-glass contraction speedily yielded to chloroform. Forceps were used thirty-three times, being rendered necessary in two cases (mother and daughter) by contraction of the brim; in five (primiparæ) by the large size of child; and in the rest by failure of expulsive pains when the head was at the outlet of the pelvis. In no case was there any excessive hemorrhage, which is attributed to the influence of ergot. This drug was given in drachm doses of the fresh powder, stirred up in warm tea, and has been administered in fully one-third of the cases. There was no death from purely puerperal causes. Rupture of the perineum occurred only to a slight extent, in no case requiring any other treatment than keeping the legs well together for a few days.

Hypodermic Injection for Piles.—Prof. Andrews, who first gave publicity to this method of treating piles, has requested, through the pages of the *Michigan Medical News*, the details of any evil results following its use. Communications should be addressed to Edmund Andrews, M.D., No. 6 Sixteenth Street, Chicago.

Chronic Cystitis.—A case of chronic cystitis, occurring seven years after an operation for lithotrity, is reported by W. F. Teevan, F.R.C.S., in which recovery was brought about by an exclusively milk diet. The patient took about six pints of milk a day, and at the end of a week he had lost all pain; the urine was quite clear, acid, sp. gr. 1020. A month later he still remained well, although an enlarged prostate compelled the use of a catheter twice a day.—*The Lancet*, Dec. 7, 1878.

Diseases of the Bronchial Glands.—Dr. Richard Quain has analyzed the records of sixty cases in which these glands were diseased, and has given an important contribution to their clinical and pathological history.

The pathological conditions to which they are liable, apart from tumors, are congestion, acute and chronic inflammation, tuberculous, scrofulous and syphilitic disease. Acute and chronic inflammation in rare cases leads to abscess opening into the bronchi or mediastinum. Chronic inflammation, which is rather common, leads generally to enlargement or calcareous degeneration.

Disease of the glands occurs oftener in females, and after the age of puberty. Besides the various cachexiæ, the exciting causes are the fevers, and inflammations of the structures which contain the afferent lymphatic vessels, bronchitis, pleurisy, and pneumonia. The enlarged glands pressing on the recurrent laryngeal may excite cough.

The symptoms, in order of frequency, are as follows: cough which is generally dry, pain felt near the fourth and fifth dorsal vertebræ, with tenderness on pressure, often accompanying it. Dyspnœa, sometimes equalling that of spasmodic asthma.

Dysphagia and hæmoptysis in one-sixth of the cases. The amount of blood varies, but is sometimes considerable. Expectoration of ordinary mucus was frequent; more rarely pus or calcareous particles were found in the sputa.

Aphonia and vomiting occurred in a few cases.

Congestion and puffiness of the face were noted. This, as well as the hæmoptysis, is caused by pressure on the venous trunks.

There is a position of least discomfort which each patient is apt to assume. Physical signs help in the diagnosis. Dulness in the interscapular region was present in forty-seven cases. Bronchial breathing, loud expiratory murmur and feeble breathing were each noted in about a dozen cases. Vocal resonance is sometimes increased.

The treatment has to be directed to the cause and the general condition. It is often very successful.—*British Med. Jour.*, December 14, 1878.

Vaginal Enterocele.—A very curious case of this kind has been reported by Dr. Hodgen to the St. Louis Medical Society. The patient, aged 40, mother of two children, was first observed in 1874 to have a tumor the size of a goose-egg on the left labium. It could be pushed back completely into the abdominal cavity, but returned when the patient stood up. It kept increasing in size until in four years an enormous, slightly pedunculated tumor, weighing sixty-four pounds, hung from the labium. It seemed to be composed of hypertrophied skin, of omentum, intestine, and the bladder. The patient died of pernicious malaria. On autopsy the hand could be easily passed from the pelvis into the hernial sac of the tumor. This sac contained a gallon of serum, considerable omentum, and part of the colon. The bladder formed part of the tumor, but was outside of the sac. The uterus was dragged over, but remained in the pelvis. The tumor had passed down by the left side of the vagina, nearer its anterior than posterior wall.—*St. Louis Med. and Surg. Journal*, Dec., 1878.

Progressive Muscular Atrophy without Central Lesion.—A very peculiar form of progressive muscular atrophy is reported in the Paris *Gazette Médicale*, Dec. 14, 1878. A woman, previously healthy, was suddenly taken with high fever and severe pains in her body and limbs. By the third day the extremities had perceptibly diminished in size. The muscular atrophy continued, but the pains grew less. At the end of ten weeks she was admitted to the Hotel Dieu. There was then marked atrophy of the lower limbs, forearms, and hands, notably the thenar and hypothenar eminences. There was paresis and loss of muscular contractility just in proportion to the muscular atrophy. There was no contractions, no loss of sensibility; rectum and bladder were normal. The patient died in two weeks from a complicating pneumonia. Autopsy revealed absolutely no lesion of the brain or cord. The muscles showed the usual degenerative changes. The disease was considered one of progressive muscular atrophy of peripheric origin. Its rapid course and simultaneous implication of many muscles separate it from the ordinary form.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, February 1, 1879.


## A NATIONAL HEALTH BUREAU.

THE public mind has been so much exercised in regard to the necessity of some better means of protection against epidemics than at present exist, that the way has been prepared for the presentation in Congress of bills bearing upon the creation of National Bureaus of Health.

There are now before Congress three bills having the latter object in view. The first in the order of presentation was the one known as the Lamar bill; the next is the bill of Mr. Matthews; and lastly, that which is styled the Withers bill.

As preliminary to some general remarks upon the subject under consideration, it is eminently proper that the distinctive features of each bill should be presented.

Mr. Lamar's bill contemplates the establishment at the seat of Government of a department of health, the general design and duties of which shall be to acquire and diffuse among the people useful information on subjects connected with public health, to direct the establishment of efficient sanitary and quarantine systems, to supervise the Marine Hospital Service, and to organize and direct a corps of sanitary engineers competent to superintend all public works so far as their construction may affect public health. For the general enforcement of these regulations the appointment by the President of a Director-General of Health, with a salary of seven thousand five hundred dollars, is provided for. The duties of Director-General comprise those of the present Supervising Surgeon-General of the Marine Hospital Service, and the supervision, organization, and management of the quarantines of the United States as provided by the National Quarantine Act.

This, of course, provides for the abolition of the office of Supervising Surgeon-General, and the transference of all records of his department to the new bureau. The Director-General is expected to enforce necessary quarantine, and to carry into effect such rules and regulations as in his judgment will, with the least inconvenience to commerce and travel, prevent the spread of disease. He shall also select suitable localities for establishing quarantine stations, erect suitable temporary buildings for disinfection of passengers, baggage, cargoes, and other matters believed to convey the contagious principle of cholera, yellow fever, small-pox, and other epidemic diseases; and may enforce such transshipment of passengers, baggage, and cargoes as he may deem necessary, and shall assign a competent medical officer to each station. Provision is also made for the registration of births, deaths, marriages, etc.; the procuring of information relating to the climatic, meteorological, geological, and other conditions affecting public health; the employment of experts in special lines of investigation; of clerks and additional officers, and the transmission of a report to Congress.

There are some very commendable features in this bill; but the principal objection to it, and one which must necessarily be fatal to its passage, is the autocratic powers conferred upon the Director-General.

The bill of Senator Matthews is more comprehensive in its scope, more liberal in its aim, and more consistent with the general principles of republican government. Instead of the one-man power advocated in the previous bill, the one under consideration provides for the creation of a bureau of seven members, with a Directing Surgeon-General, who shall be the executive officer. The bureau is to be under the control of the Treasury Department. The office of Supervising Surgeon-General is to be abolished, and the duties of said officer are to be transferred to the bureau. It gives to this bureau power over all quarantine regulations, and makes the Consular service a part of its machinery. It may require Consuls in foreign ports to make weekly reports as to the health of the city or country to which they are accredited, and places special restrictions upon vessels leaving Havana and other West India ports at certain seasons of the year.

All such vessels bound for any port in the United States shall be required to obtain from a medical officer, serving in the office of the consul of the United States at that port, to be appointed by the President for that purpose, his certificate, setting forth that he has personally inspected said vessel, her cargo, crew, and passengers; that the rules and regulations prescribed by the Bureau of Health in respect thereto have been fully complied with; and that, in his opinion, the said vessel may be allowed to enter a port of the United States and land its cargo and passengers, without danger to the health thereof on account of any infectious disease; and without such certificate of said medical officer, it shall not be lawful for any such vessel to enter any port of the United States.

It also gives power to the bureau to appoint a

health officer at each port of entry, who is to have the charge and enforcement of all sanitary and quarantine regulations. For this service the bill contemplates the appointment, in a great measure, of the present marine hospital corps. The Director-General, with the advice and consent of the Board of Health, is required to correspond and co-operate with similar local officers, boards, and authorities acting under laws of the States in sanitary measures, to prevent the introduction and spread of contagious and infectious diseases from foreign countries into the United States, and from one State into any other State, by means of commercial intercourse, and upon and along the lines of inter-State trade and travel; and to that end it shall be lawful for said Board of Health and Director-General of Health to confer upon any such local officer or board within or near the locality where his or its authority is exercised, power also to enforce the provisions of this act, and any rules and regulations made in pursuance thereof.

The Withers bill is based upon a recommendation of the Executive and Advisory Committees of the American Public Health Association. It merely provides for the drawing of a plan for a National Public Health Association, to be submitted to Congress at its next session. The Public Health Association is apparently fearful of hasty legislation, and can seemingly suggest no better line of action. Its main objection urged against any present legislation is that there is a great diversity of opinion regarding many matters bearing upon general or local quarantine, and the inference would seem to be that in the course of the coming year all the difficult questions will be sufficiently settled. It is further urged in the memorandum of the Health Association referred to, that the selection of a committee for this purpose is of the greatest importance, and that consequently it should be left to the members of the National Academy of Sciences. Probably as an improvement on this suggestion, the said Academy was designated in the bill as the proper body to take the matter in hand. We cannot believe that the Public Health Association is willing to father the bill as it now stands—to leave sanitary matters to a body of gentlemen who have never given any attention to the subject, and whose studies are confined to astronomy, geology, entomology, and kindred subjects. If this Academy is qualified to decide on matters of quarantine, and is the only competent tribunal to which sanitary questions must be submitted—the only authority to be trusted in proposing a plan for a National Public Health organization—it is time the profession should make a new departure and call the so-called expert sanitarians to account. The utter absurdity of the proposition is of itself sufficient to make the defeat of the Withers bill a foregone conclusion.

The suggestion of the Health Association, that the present state of sanitary science forbids present legislation, is a piece of presumption for which there does not seem to be any adequate excuse, except perhaps to explain why nothing was accomplished at the recent meeting in Richmond, Va. We believe that the Public Health Association is mistaken in regard to the necessity of delay. The public and the profession have lost patience in waiting for some reasonable suggestions from the Association; and have been so disappointed with the results of the last annual meeting of that body, that they are willing to look beyond the provisions of the Withers bill for help.

The President, in his message, urged immediate action, and in so doing he gave expression to the general wish of the people. The profession stands ready to endorse his propositions, and enter heartily into any scheme which may bring about the desired result. At present there is no better way of doing this than in supporting the Matthews bill. Therein are contained all the good features of the Lamar bill, with none of the objections which obtain in the bestowal of autocratic powers. Therein provisions are made for the distribution of authority and responsibility in the Board, for the enforcement of intelligent quarantine in ports of exit and entry, for reasonable local quarantine upon rivers and railroads, and for the creation of local health boards in times of emergency. There is one thing, however, which would increase the scope and efficiency of the bill—and that is the incorporation of a provision for an international inquiry into the causes for yellow fever at the places of endémicité.

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### THE PLAGUE IN RUSSIA.

Recent advices state that a disease, resembling in general character and in high rate of mortality the Plague, has made its way upward toward the North and East of Russia, from the Caspian Sea along the Volga. It appears to have been imported by a regiment of Cossack soldiers, the germs of the disease having been contained in some booty from Turkey, which was carefully concealed from the quarantine inspector. When the disease first appeared it was looked upon as a severe form of typhus, and it was not until the characteristic lesions showed themselves that grave suspicions were aroused and that the government saw fit to take some steps to stay its progress. From all accounts it appears to be spreading beyond the control of the local authorities. The terror of the inhabitants of some of the towns infected is so great that large numbers have fled, scattering the disease throughout wide districts of country. The mortality has reached ninety per cent., and the type of the disease is peculiarly malignant. There does not seem to be much doubt that the latter condition is due to the late war and the attendant results of general privation and famine. What adds a peculiar gravity to the situation is the fact that Russia has a very imperfect idea

of quarantine, and is in the anomalous and distressing condition of being poorly supplied with physicians.

In attempting to read the future by the past, there is hardly any danger of the disease spreading beyond the confines of the southern and eastern portions of Russia, unless perhaps the impoverished condition of the people may make an exception to the general rule. The probability of the latter, however, causes some anxiety in South-eastern Europe, to which place the disease would spread, if anywhere, beyond Asia. During the last decades, after a long immunity, unmistakable epidemics of the disease, though of limited extent, have appeared in isolated regions of Africa and Asia. In 1858 and 1859 such an epidemic occurred among the Arabs in North Africa, another in 1857 in Mesopotamia, and one in 1871 in Persian Kurdistan. Since then until the present the disease seems to have died out. Its revival again in Asia proves that history is about to repeat itself. The distinctive characters of the disease are chill, great prostration, high fever of a typhoid type, dizziness, nausea, vomiting, accelerated respiration, and in time suppuration of the inguinal glands or the glands upon the neck or in the axilla. Death usually takes place between the third and fifth days. When there are lung complications and bloody expectoration, the term "black death" has been used to designate the disease. By most authorities the bubo-plague and black death are supposed to be one disease showing itself in different forms.

### THE STATE MEDICAL SOCIETY.

THE next meeting of the State Society, which is to commence at Albany, on Tuesday, February 4th, at 10 A.M., promises to be one of extraordinary interest. Judging from the number of papers which are promised, the scientific element of the meeting will predominate over that of any other previous session within our remembrance. In the abundance and variety of the good papers which are offered, there is but one concern, and that is, the lack of time for their presentation. This condition of things would seem to indicate the necessity of utilizing all the time possible for the discussion of strictly scientific subjects. Still the legislative element of the meeting must not be ignored. The best way to meet all the necessary requirements is to have the ethical questions worked up by committees, the same being reported upon at the proper time.

### COLOR-BLINDNESS.

A COMMITTEE of the Legislature of Massachusetts has been formed for the purpose of ascertaining whether or not legislation was necessary in regard to the employment in responsible positions upon railroads of persons who were color-blind. Dr. Joy Jeffries, of Boston, who has given the subject much study, was called upon for an opinion. To prevent accidents from color-blindness in persons in the employ of railroads, he proposed form instead of color for signals in the day-time, and some substitute for color at night. Of the colors he stated that red was the most intense, and green the next. With color-blind persons the intensity of the colored light was the sole guide. Any color that looks dark seems red; a brighter color seems green, and a color still brighter appears white. Test a color-blind engineer, and he will, in many cases, tell the signals at once, for if he sees a dim light he knows that means "stop;" when it is brighter he feels safe, and when it is still brighter he knows he is safe.

In the course of his testimony, Dr. Jeffries, although he himself has never tested railroad employees for achromatopsia, gives some interesting statistics bearing upon the subject, leaving us to the natural inference that the defect may be equally prevalent in our own country, and among those who drive our locomotives, and those who care for the switches.

In Switzerland 171 railroad employees out of 7,953 were found to be color-blind, and discharged from the service of the companies on that account. On the Paris and Lyons Railroad 10 per cent. were found to be color-blind. In Holland 152 railroad employees out of 2,300 were found to be color-blind. Examinations in this respect are now being made in Sweden, Norway, Italy, the Austrian navy, Bavaria, Prussia, Denmark, and France. We cannot see why such examples should not be followed in our own country, and the presence of Daltonism be made a legal disqualification for any responsible position on railways. From present indications Massachusetts will probably take the initiative in the matter.

### THE ELECTRIC LIGHT IN THE COAL MINES.

DR. O'BRIEN, of Scranton, Pa., in a letter, which we publish in another column, makes a suggestion regarding the use of the electric light in the coal mines, and gives good reasons for believing that the mortality among colliers would be decreased thereby. The statistics which he gives us are certainly suggestive of some remedy. The great obstacle to the introduction of the electric light is its cost; but the end to be attained certainly justifies the means to be employed. Aside from the increased illumination which can thus be given, there is no danger of the light being blown out by explosions of powder.

RAPID ANÆSTHESIA.—Give the patient the etherinhaler, let him hold it to his face with one hand and elevate the other. In a few minutes the arm will drop, and there will be from thirty to fifty seconds of unconsciousness, during which minor operations of surgery, reduction of dislocations, etc., can be performed. The right moment must be seized, for, if the patient returns to consciousness, full etherization will then have to be employed.—*Phil. Med. Times.*

# Reports of Societies.

## CHICAGO MEDICAL SOCIETY.

*Regular Meeting, Dec.* 16, 1878.

DR. E. INGALS, PRESIDENT, IN THE CHAIR.

(Special Report for THE MEDICAL RECORD.)

DR. JOHN BARTLETT read a paper entitled

### A SUGGESTION AS TO THE MANAGEMENT OF PLACENTA PREVIA.

THE practice now generally in vogue consisted of two methods: 1st. The use of the tampon for the triple purpose of gaining time, arresting hemorrhage, and exciting uterine contractions, and delivering by the feet as soon as the os is sufficiently dilated. 2d. Rupturing the membranes for the double purpose of arresting bleeding and exciting contractions, tamponing with the same view as in the first plan, and awaiting the progress of the labor, unless hemorrhage should be excessive, in which case the placenta is to be separated from the os as far as the fingers may reach, and the case left further to nature. After this last step it is claimed all hemorrhage will cease.

For these methods, involving the use of the tampon and separation of the placenta from the cervix, he proposed as a substitute the following practice: perforate the presenting placenta by means of an instrument resembling the thread-shield used by seamstresses, provided with a serrated edge resting upon and extending slightly beyond the nail of the index finger. Close the opening with a finger-point until, with the other hand, a Hobbs's dilator—shaped like a truncated cone, with the base upward, and having a diameter, when dilated, as great as that of the hand—is slipped into the perforation. The dilator is then quickly expanded to the size of the perforation, to prevent escape of the liquor amnii; then by gentle hydrostatic pressure the os uteri, and with it the opening in the placenta, is dilated to the size of the hand, slight traction meanwhile upon the staff of the dilator being made to secure the pressure of the placenta against the cervix, and preventing unnecessary detachment and hemorrhage. Dilatation being complete, as shown by the register of the dilator, tension is diminished by lowering the fountain, the hand is passed up beside the dilator, which is gradually collapsed and withdrawn, the hand taking its place in the cavity of the cervix. The operator then grasps the feet and delivers at once.

He objected to the methods in vogue for several reasons: the tampon was unreliable for the arrest of hemorrhage; it would frequently dam up the blood so that the latter would cause a needless separation of the placenta. The tampon had been known to be retained so long that putrefaction of the blood had taken place, and septicæmia had resulted. If the tampon is removed frequently to note the progress of dilatation, quantities of blood are lost at each removal. The use of laminaria tents for dilating the os was unsatisfactory from the difficulty in keeping them in position; and Barnes's rubber-bag dilators tended to expand in the direction of least resistance, and might easily force the placenta off from the cervix to an unnecessary degree. Puncture of the membranes was objectionable, because it involved a loss of the liquor amnii, and thereby made turning difficult—an operation often required, and required promptly.

He thought Dr. Barnes was wrong in his explanation of the period of comparative cessation of hemorrhage when the cervix was fully dilated. It was not the intermittent action of the uterus in contraction that stopped the flow, but the altered relation of the vessels to the uterine tissue. This altered relation was due to the change from a state of contraction to one of dilatation of the cervix. The stretching of the cervix compresses the vessels necessarily and arrests hemorrhage. In placenta previa hemorrhage was liable to occur until the cervix was fully dilated. To await this dilatation, even with the use of the tampon, was, he thought, attended with danger. The dilatation was delayed by the attachment of the placenta acting as an unyielding splint upon the cervix; the detachment of this splint was a step in aid of the dilatation. But it was important this detachment should be as little as possible, for the prospect of the child being born alive was lessened in proportion to the extent of the separation of the placenta before delivery.

The method of practice he had set forth embodied the principle of the tampon with certainty and efficiency. No removal of the plug during the dilating process was necessary—the register of Hobbs's dilator giving positive evidence when dilatation was complete. This dilator, used in the way suggested, would lead to only such a degree of detachment of the placenta as was indispensable; moreover, it would, by its shape and position in the cervix and the rent in the placenta, prevent, to the fullest degree possible, hemorrhage. The dilator of Dr. Hobbs having the rubber bag covered with silk, it was impossible for it to expand excessively in the direction of least resistance; it must expand equably; the form of the silk bag determined the shape of the apparatus when fully dilated, therefore there could be no treacherous tearing off of the placenta to an uncalled-for extent.

Dr. Bartlett then reviewed the objections to his method. Perforation had been to a large extent abandoned, because of difficulty in executing it, danger to the child, and danger to the umbilical vessels. He thought these objections applied to perforation by the old plan, but hardly to that suggested in his paper. The cord could hardly ever be injured, as it must ever be to one side of the centre of the os. "As it is very unlikely that the main root of a tree will be found to correspond with a cavity in the ground in which it has grown, so it is highly improbable that the main attachment of the ovum would be found to be over a cavity in its bed of implantation." He referred to the interesting analogical fact that in the ungulates, as the mare and sow, there is what anatomists call a diffuse placenta, a closed sac of umbilical vessels entirely surrounding the young, and perforation of the placenta is essential to birth.

The paper was discussed by Drs. T. D. Fitch, Paoli, Ingals, and others.

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*Regular Meeting, Jan.* 6, 1879.

THE PRESIDENT, DR. E. INGALS, IN THE CHAIR.

### BRONCHITIS.

DR. F. H. DAVIS read a brief paper on the diagnosis and treatment of bronchitis. After giving a succinct description of the different forms of bronchitis, he referred to the treatment that had been most useful in his hands. The common mixture of chloride of ammonium with morphia and tartarized antimony he regarded as the most uniformly efficient in acute cases. He had used atomized fluids to a considerable extent; solution of bromide of potassium and

paregoric were valuable, also chloride of ammonium solution. Where there was a good deal of bronchial irritation in chronic cases he had found great benefit from the use of balsamic preparations by inhalation from hot water. A good combination was that of a drachm of the oil of Scotch pine in three ounces of camphorated tincture of opium, with a little magnesia. A teaspoonful of the mixture should be added to a pint of hot water, the steam from which may be inhaled from any extemporized inhaler—a teapot or tea-kettle will do.

In chronic cases, complicated with emphysema, and where breathing was difficult, he had prescribed with good effect the exhalations into rarefied air. This measure, practised frequently and regularly, would give any such patient great comfort and amelioration of condition.

#### HAS THE MAMMALIAN RED BLOOD-CORPUSCLE A NUCLEUS?

Dr. W. T. Belfield read a paper on the above subject, in which he described certain experiments he had made to settle the question. Prof. Boettcher had claimed to have discovered a nucleus in the red corpuscles by first bleaching the latter with a saturated solution of corrosive sublimate in alcohol, then immersing them for a time in alcohol, and finally staining them with carmine, the centre of many of the corpuscles showing a spot more highly stained than the rest of the mass, which was the nucleus. Dr. Stowell, of Ann Arbor, had recently confirmed Boettcher's results. Dr. Belfield had repeated the experiment of Boettcher without developing any of the more highly-stained spots, and while he could not doubt the German professor had discovered them, he questioned whether they were not the result of the action of the reagents used, and therefore an artificial product.

The corrosive sublimate and alcohol coagulate albumen, and contract the tissue of the corpuscles, as shown by the micrometer. It was quite possible that some coagulate mass of a corpuscle should become more thoroughly stained with the carmine. If, however, the corpuscle had a nucleus that would take staining material in greater degree than the body of the cell, after the whole had been bleached, this ought to follow quite as readily if the bleaching were done with other agents than the one named, and with less danger of error, if the bleaching material were free from the objection of coagulating or contracting the corpuscle. Accordingly he had used acetic acid, sulphurous acid, chlorine, and a freezing temperature (none of which caused contraction or coagulation) variously for bleaching, and both aniline and carmine for staining. He had examined, with the aid of these means, reptilian blood and the blood of three mammalian species, including human blood; he had gone over the experiments several times, and while he had invariably found the nuclei in the reptilian blood more deeply stained than the body of the cell, the mammalian blood in no instance showed any trace of anything that could possibly be regarded as a nucleus. In every instance all the red corpuscles were stained uniformly in every part.

He had exhibited his specimens, prepared in the manner described, to a number of microscopists (Mr. Atwood, and Drs. Johnson, Curtis, Lyman, and Bridge), who were asked, before being informed of the manner of preparation of the respective slides, or the kind of blood they contained, if they could discover anything in any of them that resembled a nucleus. Each pronounced positively in favor of a nucleus for the blood that was reptilian, but no one had been able to see such an appearance in any of the specimens of mammalian blood.

He believed that so far a nucleus had not been demonstrated to exist in the red corpuscle of man. He combated the argument that the homology of tissue required the existence of a nucleus in the blood-corpuscles. No nuclei had been found in the enamel rods or the superficial cutaneous epithelium. The function of these parts was purely mechanical, and no nucleus was needed. The office of the red corpuscles was quite as thoroughly mechanical or chemical. The corpuscles were carriers of oxygen, a purely chemical performance, certainly not a vital one, and nuclei were unnecessary.

## NEW YORK ACADEMY OF MEDICINE.

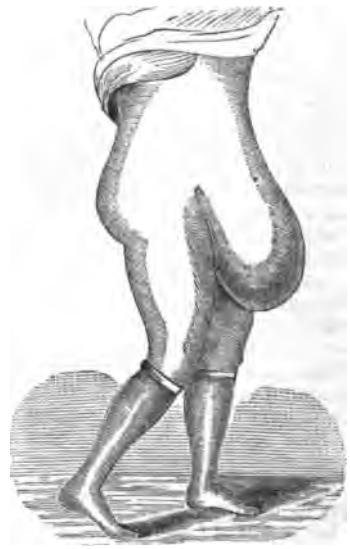
### OBSTETRIC SECTION.

*Stated Meeting, December* 26, 1878.

Dr. Salvatore Caro, Chairman.

#### PENDULOUS UTERUS AT FULL TERM OF UTERO-GESTATION—COMPLETE ANTEVERSION AND ANTEFLEXION.

Dr. Isaac E. Taylor presented an illustration, and gave a history of an interesting case in which there was complete anteversion and anteflexion of the uterus at the full term of utero-gestation—the uterus covered with the pendulous abdominal walls, and hanging between the thighs.



The woman was 22 years of age, and multiparous. When labor began the uterus was lifted as high as possible and supported by a strap over the woman's shoulders. Labor progressed so that the head descended partly through the superior strait, where it remained for about two hours. It was then thought advisable to resort to artificial delivery. The pelvis was a generally contracted one, and it was evident that the uterine forces would not be sufficient to deliver the child. The forceps were applied without difficulty, but nearly an hour was required to deliver the head of the child. It then required about an hour and a half to deliver the shoulders of the child.

Dr. Taylor had published a report of a similar case in the *Medical Times* in the year 1845.

In that instance, as in the latter, he learned the value of understanding not only the rotation of the head in the pelvis, but also of the shoulders in the superior strait. After laboring about an hour unsuccessfully he reversed the order, and instead of attempting to first deliver the posterior shoulder he applied the blunt hook upon the anterior shoulder and gradually brought it to the right side, and in the course of fifteen minutes complete rotation had been accomplished, and the woman was delivered of a living child, which weighed 11¼ pounds.

In this case the uterus was more perfectly pendulous than in the first case reported, and, therefore, was unique in Dr. Taylor's experience.

THE USE OF THE OBSTETRIC FORCEPS IN GENERALLY CONTRACTED PELVES.]

In such cases the method of delivery by the use of the forceps was regarded as important. Not only in such cases, but forceps delivery was applicable in those in which the child was large; for, in using the forceps we should not only take into consideration the head of the child, but also its body.

In cases of generally contracted pelvis, as soon as he found that the head did not progress at all, or only slightly so, he resorted to forceps delivery.

THE USE OF THE OBSTETRIC FORCEPS IN CASES IN WHICH THERE ARE ONLY FEEBLE UTERINE CONTRACTIONS.

With reference to the use of the forceps in cases in which there were feeble uterine contractions, Dr. Taylor reported the following case:

A woman with ample pelvis was taken in labor with her first child. The head was perfectly free in the pelvic cavity, but it did not descend. The doctor decided that it was necessary to deliver by forceps, and for one of the following reasons: the head did not descend, either because of the size of the shoulders or the body, or because of the shortness of the cord, or because of an inert uterus. Which one of those three causes for delay in descent of the head was operating could not be determined. The cervix was dilated to about the size of a half-dollar, was natural to the touch, and the membranes had been ruptured about an hour and a half. The woman was put moderately under the influence of chloroform, the forceps applied, and after the head was delivered it required about three-fourths of an hour to deliver the shoulders.

Dr. Taylor thought, that without the forceps the shoulders would not have descended sufficiently far to permit of delivery of the body of the child.

He had found that in some cases the forceps became an absolute necessity for the three reasons mentioned.

APPLICATION OF THE OBSTETRIC FORCEPS ANTERO-POSTERIORLY.

With reference to the use of forceps in this class of cases (failure of a small head to descend in an ample pelvis) he had been forcibly impressed with a remark made by Dr. Hamilton, of Falkirk, that the forceps were applied "antero-posteriorly." Dr. Taylor had no hesitation in denying that Dr. Hamilton or any one else applied the forceps antero-posteriorly, because the head entered the pelvic cavity obliquely, descended obliquely, and the forceps could be applied only obliquely, either indirectly or positively so.

Dr. Taylor did not wish to be understood as urging the use of forceps when nature was apparently perfectly competent to accomplish delivery of the child with safety to the mother, but that there were many cases in which the instruments could be used early and with the greatest possible advantage for the purpose of making the head adapt itself properly to the cervix.

LACERATION OF THE CERVIX, AND THE USE OF THE OBSTETRIC FORCEPS.

He had yet to see harm done to the cervix uteri by a just and proper application of the forceps, and did not hesitate to record his experience against the frequent occurrence of laceration by their use, which was so rampant in the mind of the profession.

He believed that paralysis of the cervix was frequently mistaken for laceration, the same as paralysis of the perineum was frequently mistaken for laceration when the cases were examined soon after labor was completed.

Dr. Taylor's method of examination, for laceration of the cervix, was by the use of the speculum about half an hour after delivery, believing ocular demonstration to be much more reliable than touch by the finger. The speculum had shown to him that laceration did not occur to the extent supposed when the forceps were properly applied.

In cases in which the os was dilated until it became thin like a piece of paper, and the delicate cord-like Colica's muscle could be easily felt in the edge of the cervix, it was better to introduce exceedingly thin-bladed forceps, and hold the head in proper contact with cervix, than to attempt to facilitate delivery by handling the cervix with the fingers.

CHLOROFORM AS A UTERINE STIMULANT.

In some cases in which it had seemed that the forceps were necessary in order to complete delivery, the moderate influence of chloroform had been sufficient to stimulate the uterus to action, and render the use of the instruments unnecessary. In all cases, therefore, of proposed forceps delivery, he first carefully watched the stimulating effect produced upon the uterus by mild anæsthesia from chloroform, and if that proved insufficient he then proceeded to deliver with the instruments.

REMOVAL OF THE FORCEPS BEFORE DELIVERY OF THE HEAD OF THE CHILD.

The delivery of the head of the child should never be completed with the forceps. When the head had been brought down against the perineum the instruments should be removed and the delivery completed after the manner of a natural labor. In that manner he avoided producing laceration of the perineum.

NON-SUPPORT OF THE PERINEUM.

Again, he never supported the perineum, but when the head had reached the floor of the pelvis and the perineum had become well distended, with two fingers placed behind the anus between it and the coccyx, he pushed the head out *in the interval between pains*, when all the parts were at rest.

POSTERIOR PRESENTATION—OBSTETRIC FORCEPS IMPERATIVE.

Dr. Taylor also stated that in cases of posterior presentation, when the head had been brought down upon the floor of the pelvis, the forceps became inoperative, and therefore it was improper to attempt to complete the delivery by means of the instruments. In such cases, if delivery was completed by the forceps, there

was very great risk that serious injury would be done to the soft parts of the mother.

Dr. Caro remarked that, since he had adopted Dr. Taylor's method of delivery by forceps, he had not seen a laceration of the perineum in his own practice. Formerly he had produced laceration of the perineum, and had noticed that the rupture occurred just at the time the head was delivered and the forceps were pressing in their largest diameter.

A case was reported as an illustration: He was called in consultation to see a primiparous woman, æt. 26. There was general anasarca. The physician in attendance had not tested the urine. She was taken with eclampsia. The physician unfortunately thought she would be delivered by nature, and allowed her to remain in a continued series of convulsions from nine o'clock in the evening until seven o'clock on the following morning. Dr. Caro found the woman blind, unconscious, and extremely restless. Chloroform was administered to quiet the woman, the forceps were applied, and, much to the surprise of the gentlemen who were present, were removed before the head was allowed to pass the perineum. The perineum was saved, the life of the child was saved, and the woman regained her consciousness as soon as delivery of the child and the placenta was completed.

With reference to laceration of the cervix, he admitted that a certain degree of physiological laceration occurred during labor, but he thought that none of the specialists had had any of his patients to treat for laceration of the cervix.

With reference to its prevention he believed that by the use of chloral or morphine during labor, the os could be so softened that the child would be born, in most cases, without the occurrence of such accident. If laceration did occur, he thought the after-treatment had much to do with its rapid healing. His plan, in all cases of confinement, was to permit the woman, three or four hours after delivery of the child, to get up and sit upon the chamber for the purpose of emptying out the clots lying upon the floor of the vagina. In addition, keeping the parts thoroughly cleansed by the use of disinfectant injections, was very important. If those measures were thoroughly carried out he thought they would greatly facilitate cicatrization if any laceration was present.

Dr. Griswold referred to a case in which profuse hemorrhage occurred from a slightly lacerated perineum. Three veins were involved in the rupture. A ligature was applied to each of the bleeding vessels, after which the laceration was closed.

Dr. Caro referred to hot water as a measure for arresting such hemorrhage, even though as profuse as represented in Dr. Griswold's case.

Dr. Griswold also referred to a case of obstinate vomiting in pregnancy, and asked for counsel with reference to treatment. The woman was a multipara, about one month advanced in pregnancy; had almost constant vomiting and almost constant diarrhœa; and, although not hysterical, had from six to twelve tonic spasms daily. The diarrhœa had interfered with rectal alimentation. She had not suffered in like manner in her former pregnancies. The spasms, occasionally, were of considerable duration—one having lasted for two hours. They were epileptiform in character. She had not suffered previously from epilepsy. She was forewarned of their occurrence by severe pain in the region of the heart, extending up to the left shoulder, down the arm, and when it reached the hand she was seized with the spasm. The anginal character of the symptoms suggested nitrite of amyl, but it had been tried without benefit. The uterus was somewhat anteverted, and was apparently in a soft, natural condition.

Dr. Taylor suggested tr. iodine or tr. nux vomica, in doses of five drops; also that a pessary might be used which would support the uterus until the advance in pregnancy raised it out of the pelvis. He thought there was no special danger of producing uterine contractions by such treatment. He also suggested dilatation of the os as recommended by a physician of Manchester.

Dr. Caro suggested hypodermic injections of hydrate of chloral in ten-grain doses.

Dr. F. V. White referred to a case in which delivery was retarded by a short cord. The cord was finally cut and the child was born very quickly. He believed that if the forceps had been applied in accordance with Dr. Taylor's suggestion, the woman would have been saved from a great amount of suffering.

#### METHOD OF PREVENTING AFTER-PAINS.

He also referred to a case seen with the late Dr. Peaslee, who said that he always remained by the bedside of the woman for at least one hour after the birth of the child; that the last thing he did before leaving her was to carefully remove all clots from the os; and that by so doing, as a rule, he prevented the occurrence of after-pains.

After the nomination of officers the Section adjourned.

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## SECTION IN SURGERY.

*Stated Meeting, December* 20, 1878.

Dr. Stephen Smith, Chairman.

#### THE PRESENT AND THE PROSPECTIVE STATE OF ELECTROLYSIS IN SURGERY.

Dr. G. M. Beard in a concise manner presented the following points relating to the above subject:

The definition which he gave to the term electrolysis was "decomposition by means of electricity," and it was to be distinguished from the galvano-cautery when, not electricity, but the heat produced by electricity was used.

In all external applications of electricity there was liable to be more or less electrolytic action, but the term electrolysis was applied especially to applications of electricity where needles were used. Practically it was limited to that, although in a strict scientific sense there was more or less electrolytic action in very many of our electrical applications when needles were not used.

The *rationale* of the electrolytic action was complex. Three elements entered into its action:

1. The actual chemical changes which took place at the positive and the negative poles.

2. The stimulating effect upon the secreting and absorbing surfaces; and

3. The effect upon nutrition through the nerves.

Dr. Beard then spoke of the electrolytic treatment of several diseases:

*First, of Nevi.*—There were three varieties of nevi: 1. That raised above the skin; 2. That situated in the skin—the port-wine mark; and 3. That underneath the skin. He had obtained the best results from electrolytic treatment in the first variety, and second best in the third variety. In the first and third varieties, the results which he had obtained had usually been very satisfactory. Sometimes scars were produced, sometimes not, according to the size and the locality

of the tumor. He thought it better in these cases to have a repetition of operations with a feeble current and short applications, rather than produce scarring by the use of a strong current and long applications. Slight sloughing was not always a bad result. In some cases it was impossible to destroy the tumor without producing sloughing in a mild degree. In other cases there was no sloughing and no scar.

He had operated upon tumors of that kind on all parts of the face, in children varying in age from a few weeks up to three or four years, and was very much pleased with the average results. In some of those cases, ordinary treatment by injections of iron, by applications of collodion, and by cautery, had been unsuccessful. Full anæsthesia was used, and preferably that produced by chloroform, for two reasons:

1. Because it was the experience of the world that infants bore chloroform well; and

2. Because the electrical treatment was the best possible antidote to chloroform.

He had not seen any bad results produced by chloroform in any of these operations.

*Second, of Cystics*, benign and malignant, such as hydrocele, weeping sinew, etc.

The object was to excite the secreting and absorbing surfaces, and for that purpose the negative pole was preferable, and strong currents. He had known of hydrocele disappearing after a very brief application of the negative pole. In such cases there could not have been electrolysis, but the effect was due purely to the action upon the secreting surfaces.

*Third, of Goitres and Exophthalmic Goitres.*—Exophthalmic goitre was a nerve disease, and was usually treated by galvanism without needles. In some cases excellent results and permanent cures had been obtained.

Some varieties of goitre were perfectly cured by electrolysis. The negative pole was usually employed with the positive outside of the sponge, and without an anæsthetic.

Some of the goitres were one-half or two-thirds cured. In other cases, especially those of the fibro-cystic variety, extended treatment might be required to effect a cure.

In some cases he had used injections of fluid extract of ergot or sclerotinic acid, in doses of from five to twenty drops, in conjunction with electrolysis.

*Fourth, of Epithelioma.*—At this point Dr. Beard gave his philosophy of cancer. There existed in the person, *first*, an hereditary tendency to cancer. That tendency was developed by some local injury, such as a blow, etc.; but when first developed it was purely a local trouble, and infected the system secondarily.

The practical deduction from the philosophy was, that while the disease was yet local before the system had become infected, the method of electrolysis of the base of the tumor was efficacious. It was used upon the same principle as was the arsenic-paste treatment.

*Fifth, of Cancer of other Varieties, Scirrhus.*—In the majority of cases, electricity, in the way of electrolysis or external galvanism, relieved the pains of incurable cancers. In some cases there appeared to be an arrest of growth; in other cases there was a diminution in size, and in still others there was no apparent good effect.

*Sixth, of Fibroids.*—Fibroids of any kind were slow to treat by electrolysis, for the simple reason of their hardness. Other conditions being the same, the harder the tumor the less it yielded to electrolysis without reference at all to malignancy or non-malignancy. Some uterine fibroids would grow smaller or disappear under electrolysis, and in nearly all cases numbness, neuralgia, and other incidental symptoms might be relieved by electrolytic treatment. The use of large knives or needles, or large galvano-cautery batteries in the electrolysis of fibroids was unnecessary, unadvisable, and unscientific. It was not, however, the electricity in these cases, but the size of the needles, which did the harm. Small needles could be used through the abdomen in large numbers, and connected with mild currents, without doing any harm to the peritoneum.

*Seventh, of Glandular Tumors.*—Those yielded slowly to electrolysis. Thayer's method of strong Faradization to break up tumors mechanically, and Golding Bird's method of body batteries, he had used with a certain degree of success.

*Eighth, of Ovarian Tumors.*—There was no present probability that electrolysis would accomplish very much for ovarian tumors. If tumors of that kind were seen very early while small, it was not improbable that they could be cured by electrolysis, just as cystics in other parts of the body were cured, such as hydrocele, etc. But, practically, surgeons did not see those cases very early. The claim that ovariotomy could be displaced by electrolysis was not sustained by practical experience.

Dr. Beard also referred to aneurisms, ulcers, and certain diseases of the skin. The published statistics regarding the treatment of aneurisms by electrolysis were of but little value. Ulcers might be treated by body batteries.

The future of electrolysis in surgery depended upon radical advances made in electro-physics beyond what had already been done by experts in that department. Electro-therapeutics in all departments was based upon electro-physics, and all the radical advances in electro-surgery had been preceded by advances in therapeutical and practical electro-physics.

Dr. A. C. Post expressed a doubt regarding the propriety of using chloroform for producing anæsthesia when ether could be employed, and referred to a case in which death was unexpectedly caused by administering chloroform to a child eleven years of age. He also asked whether emboli might not come from the clots formed by electrolysis?

Dr. F. V. White remarked, that according to his own experience, chloroform was a much safer anæsthetic than ether, and referred to cases in which rather alarming symptoms had followed the administration of ether.

Dr. Stephen Smith referred to the general use of chloroform, and thought it was a safe anæsthetic.

Dr. De Luna referred to an aneurism by anastomosis, which Dr. Saas had treated successfully by electrolysis.

Dr. Beard, in conclusion, stated that his remarks with reference to chloroform applied only to its use among infants and children under five years of age. He never gave the chloroform himself, but always trusted it to some person whose duty it should be to devote his exclusive attention to its administration, and directed that small quantities only be used, and with every possible precaution. He always felt safer in its use because electricity, which was an antidote, was being used at the same time. With reference to the formation of emboli from the clots, he thought there was no danger in that direction, because the electrolysis excited a slight inflammation; which caused the clot to adhere to the walls of the tumor.

The Section then adjourned.

# New Instruments.

## AN IMPROVED HYPODERMIC SYRINGE.

By GEO. R. FOWLER, M.D.,

BROOKLYN, N. Y.

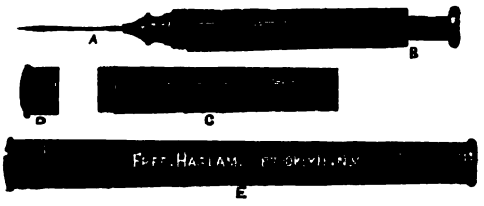
Among the many disadvantages attending the use of the present form of syringe may be mentioned the following:

1st. Drying of the piston, it being usually made of leather or like material, and consequent loss of time (on an occasion, perhaps, when an urgent necessity exists for its immediate use) in swelling or soaking the same.

2d. The danger of loose particles becoming detached from the leather packing and being injected along with the solution. This is a positive danger and not an imaginary one. I have no doubt that many cases of abscess following hypodermic injections are due to this cause and not to the presence in the solution of undissolved crystals of sulphate of morphia, as generally supposed.

3d. The leather packing requires to be frequently oiled and this soon converts the piston into a greasy mass besmearing the interior of the barrel.

4th. Wearing out of the case. The cases are made of wood covered with leather, and in warm weather especially the glue which cements the leather to the wood softens, and the case is soon destroyed and useless.




The syringe here described consists of a barrel, needle, A, piston, B, and receptacle, C, for powders. The barrel is made of hard rubber, and to one extremity is attached the needle in such a manner as to be easily unscrewed and removed. The piston is also made of hard rubber, and is accurately fitted to the barrel. The receptacle contains in its interior a guard or cover to protect the needle from injury when the whole is screwed together. This receptacle has a cap, D, the removal of which discloses a compartment for the reception of either solution or powders, preferably the latter. Into this compartment eight powders of a quarter of a grain each of the sulphate of morphia can be placed. The whole instrument when screwed together as at E, is about the size and shape of an ordinary hard-rubber thermometer case, and occupies no more room in the pocket.

My usual plan, when about to give a hypodermic injection, is to remove the receptacle, unscrew the needle, draw back the piston and empty one of the powders into the barrel. I then pour a few drops of water into the barrel, replace the point, and after giving the instrument a few shakes to make sure that all of the sulphate of morphia is dissolved, the instrument is ready for use.

This syringe may be made available for carrying in the pocket-case by having a simple guard screwed over the needle instead of the receptacle.

The advantages claimed for this instrument are:

1st. Accuracy of dosage.

2d. Simplicity in construction, there being no complicated parts to get out of order.

3d. Durability; the entire syringe, except the point, being made of hard rubber.

4th. Cleanliness, no oil or other lubricant being present to soil the interior.

5th. Always ready for use, the piston being made of solid hard rubber, and never requiring to be soaked before using.

6th. Its portability, being of very small size.

7th. Cheapness, being sold for less than the common syringes.

# Correspondence.

## SHAKSPERE ON THE PRACTICE OF MEDICINE.

To the Editor of The Medical Record.

Dear Sir:—The many-sidedness of Shakspere's mind is, to physicians, interestingly evidenced in the several occasions whereupon he refers, directly or indirectly, to matters pertaining to physic; or where the isolation or accentuation of certain passages make him appear to so refer. In illustration of this point I have selected the following excerpta from several of the plays:

Obstetrics.—"*Mar.* Does it work upon him?

"*Sir Toby.* Like aqua vitæ with a midwife."—*Twelfth Night.*

Hepatic Therapeutics.—"—— brimstone in your liver."—*Ibid.*

Cathartics.—"—— grown sick of rest, would purge."—*Ant. and Cleop.*

Syphilis.—"Pox on't!"—*Twelfth Night.*

Clinical Examination of Urine.—"*Fal.* Sirrah, you giant, what says the doctor to my water?

*Page.* He said, sir, the water itself was a good, healthy water; but for the party that owed it he might have more diseases than he knew for."—*K. Hen. IV., Part* 2.

Splenitis.—"You shall digest the venom of your spleen."—*Jul. Cæsar.*

General Surgery.—"—— hurt him in eleven places."—*Twelfth Night.*

Brachial Paralysis.—"I cannot scratch my ear."—*Ant. and Cleop.*

Venesection.—"Nay, then, I must have an ounce or two of this malapert blood from you."—*Twelfth Night.*

Alcoholismus.—"O he's drunk, Sir Toby, an hour agone."—*Ibid.*

Surgery.—"For the love of God, a surgeon."—*Ibid.*

A General Practitioner Confronted with a Specialist's Problem.—"This disease is beyond my practice."—*Macbeth.*

Fragilitas Ossium.—"The dryness of his bones."—*Ant. and Cleop.*

Embolus.—"This does make some obstruction in the blood."—*Twelfth Night.*

A Physician Defined.—"Master doctor, he is a curer of souls, and you a curer of bodies."—*Merry Wives.*

Asthma.—"—— pants, and looks pale."—*Twelfth Night.*

PRESCRIPTION.—"No dram of a scruple; no scruple of a scruple."—*Ibid.*

NECROPSY.—"Then let them anatomize."—*K. Lear.*

CHLOROSIS.—"—— and Lepidus, as Menas says, is troubled with the green sickness."—*Ant. and Cleop.*

CIRRHOSIS OF LIVER.—"—— let there be gall enough."—*Twelfth Night.*

SURGERY.—"Honour hath no skill in surgery, then."—*K. Hen. IV., Part* 1.

LEUCOCYTHÆMIA CURED.—"—— will turn to redder drops."—*Jul. Cæsar.*

UTERINE TUMOR.—"—— which from the womb."—*Twelfth Night.*

CASTRATION.—"Thou eunuch!"—*Ant. and Cleop.*

HEPATIC CONGESTION.—"I had rather heat my liver with drinking."—*Twelfth Night.*

REGIONAL SURGERY.—"I'll fetch some flax and whites of eggs to apply to his bleeding face."—*K. Lear.*

MANIA.—"Do not think I am mad."—*Twelfth Night.*

COPHOSIS.—"*Fal.* Boy, tell him I am deaf."—*K. Hen. IV., Part* 2.

MEDICAL CONSULTATION.—"What says my Esculapius, my Galen?"—*Merry Wives.*

CORYZA.—"He was troubled with a rheum."—*Ant. and Cleop.*

SUPPOSITORIES.—"—— when remedies are *past.*"—*Othello.*

JAUNDICE.—"—— hath with his tinct gilded thee."—*Ant. and Cleop.*

LEPRA.—"—— whom leprosy o'ertake."—*Ibid.*

MINERAL WATERS.—"Nay, I am for *all* waters."—*Twelfth Night.*

BENEDICTION ON AN "M.D."—"Bless thee, bully doctor!"—*Merry Wives.*

These examples (which might easily be multiplied) serve to show that if the mighty master possessed no technical knowledge of our art, he was, at least, observant of it, and often referred to it.

Very respectfully yours,

F. BRADNACK, M.D.,

No. 70 EAST EIGHTY-SIXTH STREET, N. Y. CITY, Jan., 1879.

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[A few more occur to us.—ED.]:

FLATULENCE.—"The winds grow high, so do your stomachs, lords."—*King Henry VI., Act II.*

PROBABLY GANGLIONIC DEGENERATION OF THE ANTERIOR HORNS OF SPINAL-CORD.—"Alas! master, what shall I do? I am not able to stand."—*Ibid.*

THE ANTISEPTIC METHOD.—"The foul and ugly mists of vapors that did seem to strangle him."—*King Henry IV., Act I.*

TWENTY PER CENT. CARBOLIC.—"I smell it; upon my life, it will do well."—*Ibid.*

## SURGERY IN THE COAL REGIONS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In compliance with your courteous request for statistics of accidents and peculiarities of surgery in the Anthracite region, I send you the following hastily penned items, inviting your attention specially to the suggestion of *light* as the remedy of the future for the appalling dangers of the mines.

From 1871 to 1877 (inclusive) there were killed in the Anthracite mines of this State 1,682 men, and injured 4,171, leaving 968 widows and 2,804 orphans. Bituminous mining is comparatively safe. The Anthracite region is divided into five districts; the reports of the Inspectors for 1878 are not yet made up, but through the courtesy of Mr. W. S. Jones, Inspector for the Lackawanna region, I have secured the following figures: killed in this district in 1878, 33; injured, 189. 75 per cent. of these accidents in 1878 were caused by "fall of roof." No accident occurred from explosion of gas. Mr. Jones informs me that this good result follows from better ventilation, and the exclusion of the safety lamp; he has forbidden the latter in his district on account of the small margin of safety it furnishes, and the neglect of better precautions which it has been made to excuse.

I thought I had seen the possible dangers of mining exhausted in falls of roof, explosion of carburretted hydrogen, and explosion of powder; suffocation by carbonic acid gas, and suffocation per se; accidents by caves, fire, and cars, etc., but last summer witnessed another element added to the list. In the floods of August 31st, Pine Brook burst into the Fair Lawn Slope; the men cut their way into the Pine Brook Mine and escaped by the mule-way, all but one; a miner caught two boys and faced the torrent of water coming down the slope breast high, bearing ties, coal, and débris, and lifting the car-track from its bed; on this he stumbled, struggled upward, and escaped with *one* boy.

Furnaces have given way to fans in nearly all the mines of this region; a vast improvement for ventilation. The law requiring a second opening into all mines is well observed since "Avondale" and "West Pittston," yet this terrific mortality from "fall of roof" remains. All hands attribute it to carelessness, but I have long been convinced, from personal observation underground, that the great remedy needed is LIGHT. I hope to see the day when the miners can work in their chambers with every crack and flaw in the roof overhead blazing in electric light.

The preponderance of the form of accident mentioned gives us many and unique cases of injury of the head, back, and spinal column.

February 12, 1877, P. McG. was struck on the back by fall of roof, which at the same time killed his helper; next morning I cut from the urethra of McG. a renal calculus, conical and truncated, measuring three-eighths by one-half of an inch; he had been previously under my observation for dysentery; the absence of vesical symptoms, the shape of the stone, and the finding of it immediately after the terrible blow on the back, make it certain to my mind that it was from the kidney. If I am right, the accident which killed his partner *cured* him; and an old suggestion for the dislodgment of renal calculi is affirmed.

Concussion of the spinal cord from fall of roof is so common that we become familiar with all varieties of paraplegia; it is an interesting study, responding with remarkable accuracy to careful prognosis; although the prime factors are first, seat, and second, extent of the injury to the cord, and they are not usually open for inspection, yet the nervous manifestations indicate them as the deflections of a galvanometer locate a fault in the electric circuit. Does complete paralysis extend to the umbilicus?—then death is almost certain. Does it only approach the hips?—then recovery is quite probable. In the zone between these points the anæsthetic index often wavers between life and death. I have seen cases of paralysis of the bladder (and lower extremities) requiring the constant use of the catheter for weeks, in which a little area of hyperæsthesia round the hips prompted a favorable prognosis, which the result always justified.

We have small hospitals here and at Wilkesbarre; the following are the statistics for 1878 here: In-patients, 89; out-patients, 1,194; amputations, 7. Double and triple amputations are common, and when simultaneous show a fair percentage of recoveries.

Consecutive amputations cannot be too severely condemned.

Dislocations of the hip, with all manner of fractures, are common; good surgeons hereabout make a rule to reduce all such dislocations, for obvious reasons, unless the patient is already dead.

The coal region maintains a small army of cripples as a monument to bad surgery; femurs treated without extension, and shortened from three to five inches; badly treated fractures of the clavicle, mistaken for acromial dislocations; unrecognized dislocations of the hip, and badly treated and anchylosed joints of all the limbs, are some of the records of quackery in the past.

This valley (the Lackawanna) and the Moosic Mountains round about, are entirely free from malaria; patients from ague districts suffering from not incurable lung affections, do well here.

Sincerely yours,

J. E. O'BRIEN.

SCRANTON, PA., Jan. 20, 1879.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January* 19 *to January* 25, 1879.

IRWIN, B. J. D., Major and Surgeon. Par. 7, S. O. 176, A. G. O., Aug. 15, 1878, granting him one year's leave of absence, is amended to grant said leave on surgeon's certificate of disability. S. O. 16, A. G. O., January 20, 1879.

LORING, L. Y., Capt. and Asst. Surgeon. Relieved from duty at Fort Hays, Kans., to proceed with Co. B., 23d Infy., to Fort Dodge, Kans., and there report to Col. Jeff. C. Davis, 23d Infy., for duty, to accompany the troops of his command and take post with them. S. O. 12, Dept. of the Missouri, January 20, 1879.

WILCOX, T. E., 1st Lieut. and Asst. Surgeon. Granted leave of absence for four months. S. O. 16, C. S., A. G. O.

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending January 25, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| Jan. 18, 1879. | 0 | 9 | 204 | 5 | 6 | 52 | 0 | 0 |
| Jan. 25, 1879. | 0 | 4 | 216 | 1 | 2 | 54 | 0 | 0 |

THE MARY FLETCHER HOSPITAL IN BURLINGTON, VT.—The formal opening of this beneficent institution took place, with appropriate ceremonies, in the city of Burlington, Vt., on Wednesday, January 22, 1879. This hospital was built and endowed by the munificence of Miss Mary Fletcher, and appropriately bears her name. The principal address was delivered by Prof. D. B. St. John Roosa, of this city, and was in every respect a worthy production. Brief addresses were also delivered by Prof. Walter Carpenter, President of the Board of Trustees, and by President Buckham, of the University, who is also one of the Board of Directors. The amount donated for the noble purpose was $175,000.

THE NEW DEAN OF JEFFERSON MEDICAL COLLEGE.—Ellerslie Wallace, M.D., Professor of Obstetrics, has been elected Dean of the College in the place of J. B. Biddle, M.D., deceased. No new professor of Materia Medica will be elected at present, as Robert E. Rogers, M.D., Professor of Chemistry, will deliver the lectures in this branch until the end of the present term.

VALEDICTORY ADDRESS AT THE PHILADELPHIA SCHOOL OF ANATOMY.—The lecture-room of the Philadelphia School of Anatomy was crowded on Friday evening, Jan. 10th, with medical men and students to listen to the closing lecture by Dr. John V. Shoemaker, in the department of diseases of the skin. The speaker pointed out the scientific manner in which the class had been educated so as to be "masters of all exclusive systems of medicine;" that they had frequently witnessed in the clinics the good result of the use of medicine, in both large and small doses, and the applications of electricity and of water for the cure of disease. It was shown that each remedy could not supersede, but must co-operate with others, and their selection must be guided with appropriate knowledge, sound judgment and accomplished skill. They were, therefore, scientific physicians, and not allopaths. The name "allopaths," he contended, was a misapplication, was not their proper title, and was invented by Hahnemann, to designate the ordinary practice of medicine as opposed to homœopathy. In conclusion, the speaker appealed to the physicians and students present to assist in eradicating the popular delusion in the misuse of this name of "allopath," and advised them in all cases to follow the instructions they had received, by using anything whatever that can be found to save life, relieve pain, and preserve health.

THE NEW LABORATORY BUILDING OF THE UNIVERSITY OF PENNSYLVANIA MEDICAL SCHOOL.—The work on this building was begun in May, 1878, and by November last the first, second, and third stories were ready for occupancy. The fourth floor is not to be finished until next fall. The structure is 152 feet long, by 47 feet wide; is four stories in height—68 feet—with Mansard roof, and is built of gneiss and serpentine stone. Each story is lighted by thirty-eight windows. The first floor is arranged for dental clinics, having thirty-four of the most approved style of operating-chairs, etc. The manipulating rooms of the chemical laboratory on the second and third floors are without partition in their whole extent. The students have in common the use of seven balances and two microscopes. Both floors have sixteen fully equipped fume-closets, and also two double rows of working-tables. Each student occupies a separate working-table fitted with gas, water, sink, etc. When night-work is necessary, sixty-two gas-burners give the necessary light.

The course of study pursued by the students of the first year in practical chemistry is entirely analytical, occupying eight hours each week. The work of the first year consists, first, in testing for the reactions of all but the very rare metals, and, second, in making out the equations for these reactions. At the end of this course there is an examination, which, successfully

passed, the student begins the analysis of unknown substances. Thus far the course is compulsory. Those who have done well are then allowed to take up quantitative analysis.

The second year's work in the laboratory requires four hours each week. It consists in analyzing and separating all the organic acids used in medicine, and a qualitative, quantitative, volumetric, and gravimetric examination of urine for its various normal and abnormal ingredients. The remainder of the year is spent in toxicological investigations. Poisoned animals are allotted to the students for examination. The mode of administration of the poison and its effects upon the various organs are carefully studied out.

The fourth floor, when completed, will be occupied by the physiological, pathological, and histological laboratories. There will also be a room for experimental therapeutics. The building is heated by hot-air furnaces. A fire-proof stairway in a projection on the north side of the building connects all the stories. The ceilings of all the rooms are lined with plate-iron, and supported by wrought-iron pillars. The entire cost, exclusive of apparatus, has been about $55,000.

Tri-State Medical Society.—The Tri-State Medical Society of Illinois, Indiana, and Kentucky began its annual session at Springfield, Ill., Nov. 13, 1878. A three days' session was held, during which many papers were presented. The subjects of modern lithotrity, of education, and of the yellow fever were especially discussed. The following officers were elected for the ensuing year: President, Dr. J. H. Ireland, of Louisville; Vice-Presidents, Drs. Compton, Griffith, and Holloway; Secretary, Dr. G. W. Burton, of Mitchell, Ind.; Treasurer, Dr. F. W. Beard.

Mr. A. Preterre, surgeon-dentist, of Paris, obtained at the Universal Exhibition of Paris the sole gold medal awarded to dentists.

A New Uterine Sound.—Codman & Shurtleff have recently devised a very ingenious sound, which is likely to facilitate the exploration of the uterine canal, and the diagnosis of displacements, new growths, etc. It consists of a bundle of light steel springs fifteen inches long, united at the ends, and placed within a small spiral wire which surrounds them with the exception of three inches at each extremity. Between the first and second fourth of its length is placed a handle, the rest of the sound is covered with a flexible rubber sheath. The longer portion is introduced into the os, and then, by gently manipulating the external end, the internal end can be moved in any direction. When the instrument is fairly introduced, the shorter external fourth has a curve exactly corresponding with that which is given by the uterus to the part within its cavity.

Iatroliptic Medication.—Prof. L. P. Yandell urges the more extensive use of iatroliptic medication, that is, the rubbing into the skin of drugs and nutritious oils. He has had satisfactory results from quinia by mixing it with glycerine, 3 j. to ℥ j., and rubbing in a sixth or a fourth of this daily. He has cured diarrhœa by rubbing tannic acid and glycerine into the abdomen, and has seen diarrhœa result from the inunction of croton oil. He has great faith in the inunction of cod-liver oil, olive oil, or hog's lard in phthisis and marasmic conditions.—*Louisville Med. News.*

In Memoriam.—It is noticeable that nearly all the medical societies in the South and West have adopted resolutions, or published addresses in memory of the physicians who died at their post during the recent yellow fever scourge. Many of these memorial proceedings have been published in all the newspapers of the infected localities.

Intravenous Injection of Milk.—At a recent meeting of the Philadelphia County Medical Society, a paper was read on this subject, by Dr. Wm. Pepper. He concludes, among other things, that there is no danger from embolism, that its first effect is stimulating, that its subsequent effects are less lasting than those of transfusion, and its subsequent symptoms may be as severe. It may hasten death in structural anæmia.—*Bost. Med. and Surg. Journal.*

Body-Snatching.—The editor of *The Nashville Journal of Med. and Surg.* seconds very forcibly the demand which is springing up for better laws in regard to dissection and the supply of material. He justly attacks the stupidity and short-sightedness which make it a penitentiary crime in some States to dissect a human body. Body-snatching will exist until there are laws which arrange for the proper supply of material for medical colleges.

Deodorized Iodoform.—The disagreeable odor of iodoform limits its usefulness very much. It is said that this odor is covered in a solution made as follows: Tincture of iodine is shaken up with a fragment of fused potash until the color is removed. The odor of the iodoform thus produced is concealed by adding eau de Cologne. Iodoform mixed with tannin is also said to be nearly without smell.

The Yellow Fever Germ, it is calculated, travels at the rate of 40 feet in 24 hours.

Carbolic Acid Spray in Phthisis has been tried at Mt. Sinai Hospital, in this city, and found to increase the amount of expectoration, stop fetor, and reduce the temperature.—*Hospital Gazette.*

The Warm-Water Treatment.—Dr. A. H. Goelet reports to the *Hospital Gazette* a case of the successful treatment of phlegmasia dolens by wrapping the limb in flannel, saturating this with warm water, and covering it with oiled silk. The ordinary treatment was tried first, and abandoned.

Saliva and the Digestion of Starch.—Dr. R. M. Smith, in a lecture on experimental physiology, at the University of Pennsylvania, showed that the gastric juice only suspended the action of saliva in changing starch to sugar, the action being resumed when the acidity is neutralized by the intestinal juices. He showed also that while caustic alkalies destroy the catalytic action of saliva, the weaker alkalies only suspend it. This proves the rationality of giving these alkalies in acidity of the stomach or mouth. It gives a better chance for the digestion of amylaceous foods.—*Med. and Surg. Reporter.*

The Dry Suture.—Dr. John H. Packard recommends this in closing long wounds. He uses strips of Seabury & Johnson's porous plaster two and a half inches wide and the length of the wound. These are applied on each side of the incision, and then the sides laced together, using the holes in the porous plaster.—*Phil. Med. Times.*

Resolutions on the Death of Dr. Biddle.—At a meeting of the Faculty of Jefferson Medical College,

held on Jan. 20th, the death of Dr. John B. Biddle, Professor of Therapeutics and Materia Medica, and Dean of the Faculty, was announced; whereupon the following was ordered to be entered upon the minutes of the Faculty:

"The Faculty of Jefferson Medical College find themselves plunged into the deepest sorrow by the death of their fellow-member, Dr. John B. Biddle, Professor of Therapeutics and Materia Medica, and Dean of their body, which occurred on the evening of the 19th inst. As a friend, they feel sadly the void thus created, and mourn over the departure of a greatly-loved companion. Endeared to them by his noble qualities of head and heart; as their colleague and executive officer, they realize the irreparable loss of a sound and sagacious thinker, an able and successful teacher, and a faithful, experienced, and judicious executive, whose untiring zeal and earnest labors in his own department, and for the school at large, have contributed so much to maintain the usefulness and advance the reputation of Jefferson Medical College.

"The Faculty feel that words are inadequate to express their sense of this bereavement, but desire to make record of the estimate in which they held the deceased, whose memory they will ever cherish with sincerest affection.

"They desire to convey to his sorrow-stricken family their warmest sympathy, trusting that in the knowledge they have of the esteem in which he was held in the community, and the love which was borne him by all his co-laborers and friends, and that he has left them in the assurance of a Christian faith for that larger life which is eternal, they may find comfort and consolation.

"*Resolved*, That a copy of this testimonial of the Faculty be transmitted to the family of Dr. Biddle, and also to the honorable Board of Trustees; and that the Faculty will attend his funeral in a body."

ELLERSLIE WALLACE, *Dean*.

THE NEW LECTURESHIP IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF PENNSYLVANIA.—The Medical Faculty of the University, at their meeting on Jan. 20th elected Dr. Charles B. Naucrede lecturer on "The Anatomy of the Bones and Joints," in the spring course. The other candidates were Drs. Rush, Shippen, Hindekoper, Henry Wharton, Charles W. Dalles, and Hollingsworth Neill. Through an error, in a recent number of the RECORD, we spoke of the position for which Dr. Naucrede was a candidate as "a new chair of the Anatomy and Surgery of the Joints."

A VETERINARY DEPARTMENT IN THE MEDICAL SCHOOL OF THE UNIVERSITY OF PENNSYLVANIA.—It may be of interest to the general profession to know that about ten months since the question was put to the Faculty of the Medical School of the University of Pennsylvania as to whether they would create and take charge of a Veterinary Department upon the condition that, as a first step, an endowment fund of $50,000 were raised and presented to them. The Faculty referred the matter to the Trustees of the University, who voted to answer affirmatively and accept the proposition. Ever since that time the gentleman who made the offer, Mr. Horace Smith, has been engaged in collecting the stated sum, but he has thus far made no statement of progress made.

AVOIDANCE OF PAIN AFTER AMPUTATION—REMARKS BY MR. CALLENDER, OF LONDON.—At a clinic held in Bellevue Hospital, January 26, 1879, Mr. Callender, on invitation by Prof. James R. Wood, amputated a thigh and made a few practical remarks with reference to preventing pain after such an operation.

There were many ways in which a surgeon might achieve success, but he wished to make mention of that specially characterized by a most careful observance of details and great personal care and attention to the case.

He thought surgery had so far advanced it could safely be said that, in a well-organized hospital, and with a skilful surgeon, the death-rate need not exceed six or seven per cent. He also believed the time was not far distant when even that rate of mortality would be reduced. Such results were, in a great measure, to be achieved by a careful consideration of everything which tended to give the patient pain and discomfort.

After the limb had been amputated, and the patient had been removed to the ward, there was a certain amount of distress and discomfort produced by the anæsthetic. Such was usually dealt with most satisfactorily by the administration of a sedative. He therefore made it an invariable rule to see that a sedative was administered immediately after the patient had fairly returned to consciousness. It was a small point, but it was worthy of recollection. How was the sedative to be given? Never by the stomach, but always by subcutaneous injection. The pain which the patient might suffer could be considered under two distinct heads:

1. That produced by external causes; and
2. That dependent upon internal causes.

The pain produced from causes without might be more or less referred to the position of the limb, movements of the body, changing the position of the limb, and very commonly it came from the handling by the surgeon. He recollected the time when the stump of an amputated limb was laid upon the bed, and when it was necessary to change the dressing, the surgeon was obliged to place his hand beneath it and lift it up, a proceeding which involved considerable disturbance of the parts and consequent pain to the patient; so much so, that he would almost always cry out on account of it.

To avoid such disturbance, reference was made to an apparatus which was to be applied to the amputated thigh, and briefly described on a former occasion.

With reference to the disturbances which come from *within*, there was what was called "*jumping of the limb*." As the patient falls asleep, perhaps, there was a jerking of the muscles, which awakened him, and caused him to cry out with pain. To prevent such jumping, he always made it a point to stretch the important nerves in the limb, simply for the purpose of numbing them.

Another trouble which came from within, and gave rise to pain and discomfort, was *distention of the stump with fluid, which necessarily separated the surfaces, rendering the patient liable to blood-poisoning, and prevented union by first intention.*

That could be entirely avoided by the use of a drainage-tube. The drainage-tube was prepared in the following manner: a piece of india-rubber tubing, long enough to pass completely across the limb, was cut in the middle and then united by means of a piece of ordinary catgut ligature. The catgut would be absorbed in about sixty hours, and then the pieces of drainage-tube could be removed from each side of the limb. Removed in that manner, the patient suffered very much less pain than if the whole tube was drawn through the stump. The amputation was then performed, and a description given of the apparatus (vid. MED. RECORD, Jan. 11, 1879, p. 26).

# Original Lectures.

## PRACTICAL HINTS UPON TRACHEOTOMY.

BEING THE ABSTRACT OF A CLINICAL LECTURE DELIVERED AT THE BELLEVUE HOSPITAL MEDICAL COLLEGE,

BY BEVERLEY ROBINSON, M.D.,

LECTURER UPON CLINICAL MEDICINE.

GENTLEMEN:—I esteem it a somewhat rare privilege and opportunity to be able to bring before you two patients, both wearing tracheal canula for more than a year. The first of these men was operated upon by me in the month of December, 1877, and was at that time suffering from recurrent attacks of paroxysmal dyspnœa due to spasm of the glottis. What the efficient cause of this glottic spasm was, has as yet remained undetermined. There has been, however, a suspicion that aortic aneurism, originating in the posterior portion of the arch and irritating the recurrent laryngeal by compression, is present. No phenomena other than the repeated glottic spasm have ever shown themselves corroborative of this view, and to-day my patient tells me that for the past six months he has had at no time any notable distress of breathing, and in fact feels on the whole very well. The main, practical question in his case now is, when will it be wise to relieve him of his tracheotomy tube and close up the wound of the neck. My own belief is, the sooner it is done the better. For be it fully appreciated that although he has worn his tube lately with but slight inconvenience, it is an ever-present source of possible danger. There is danger from local irritation, ulceration, and the cropping out of fleshy granulations; there is danger likewise from attacks of cold, which might more readily lead to broncho-pneumonia, lung collapse, or even acute pleurisy during the period he wears his tube. He cannot always be on his guard against inspired draughts of cold, damp air; and obviously, unless he keeps his tube constantly closed and breathes through his nose, his pulmonary capillary circulation is ever exposed to the evil results of rapid and excessive chilling.

With these remarks permit me to pass on to the subject of to-day's lecture. As I proceed I may have occasion to refer to my patient to illustrate some of my remarks.

Tracheotomy is an operation it behooves you one and all to become familiar with, even in its minute details. In your professional career you may at any moment be called upon to perform it, and the urgency may be such that no delay would be permissible. Now, this does not hold good of very many operations. The majority of these may be put off to some convenient season, or, if it be a major operation like resection at the hip-joint, or lithotomy, may be passed over to some specially competent man to cope with. In fact, gentlemen, although some amongst you, whilst being general practitioners, may also become good surgeons, opportunity will not in all, or even many instances, be afforded you to be expert in *certain* operations.

It seems apropos in this place to mention the great advantages to be derived from the skilled use of the laryngoscope in many cases in which treacheotomy is indicated. How frequently are we able thus to determine the exact nature of the affection which occasions obstruction in breathing. It may be, for example, that an intra-laryngeal growth exists. By means of the laryngoscope its size, seat and nature can frequently be accurately observed. A foreign body may be lodged within or below the larynx. How far it places life in imminent danger, what the best instrument and operation for its removal are, can only be known after a preliminary diagnosis with the small mirror. In many syphilitic affections of the air-passages; in pressure upon the trachea or pneumogastrics from tumors of the neck or mediastinum; in laryngeal phthisis, after scalds and burns, subsequent to suicidal attempts; in exceptional forms of simple chronic laryngitis, and in many other conditions besides, the laryngoscope is an invaluable aid to accurate diagnosis and wise, skilful treatment.

One of the very first questions which it is wise to answer is, whether or not an inhaled anæsthetic should be employed, and if so, which one it should be. My attention has been directed to this subject several times, but never more earnestly than a few months since, after assisting a friend of mine in a case where ether by inhalation had been used and where death unfortunately took place upon the table. It is true the operation was an unusually difficult one, for a large cancerous mass lay in front of and around the trachea, and this organ was greatly deviated from its normal position. Add to this very intense dyspnœa of the patient at the time the operation was undertaken, and considerable hemorrhage after incision into the air-passages was of *necessity* made, and you perceive at once an imminently hazardous situation. I have thought that the condition of things was rendered graver still by the use of an anæsthetic. And the reason is apparent, viz., the patient was unable to throw off the blood which forced itself into the air-passages, and thus an already perilous situation became rapidly fatal. Without the anæsthetic influence the patient's respiratory mucous lining would probably have still retained sufficient reflex irritability to occasion cough and thus expel the indrawn fluid. In reality, once the skin has been incised, tracheotomy is not extremely painful; and moreover, localized refrigeration by means of a spray-producer charged with ether or rhigolene is all-sufficient.

In membranous croup at an advanced stage the asphyxia is so great that little or no pain is occasioned, even by the first incision. In order that the little patient may not, however, grasp the hand of the operator, or otherwise interfere with his endeavor, it is advisable to wrap the arms and trunk tightly with a sheet, or large towel of suitable length. For this and many other good practical suggestions I would refer you to Mr. Pugin Thornton's excellent monograph on Tracheotomy, published in London two years ago. There are a few points in reference to the anatomy of the trachea that it will be well always to bear in mind. The trachea is sometimes quite superficial; again it is deeply situated. This latter condition, which occurs with persons who are short and thick-set, or very fat, increases the difficulty of the operation considerably. And in this place I may add that you should always have one or two tracheotomy tubes with you of different *lengths*—so that you can feel sure that *one* at least can be introduced into the trachea when opened.

Be on your guard for anomalous arterial branches, such as the thyroidean and crico-thyroid artery, which in my experience have not shown themselves. The isthmus of the thyroid, you know, is at different heights and is of varying size. Your manner of procedure may be properly influenced by these facts.

Up to the age of two years expect that the thymus gland may be in your road. Do not lose sight of the facts that the thyroid plexus of veins are often much enlarged, and that the innominate and right carotid arteries do occasionally cross the trachea at a higher level than usual. The only essential instruments in performing tracheotomy are a scalpel and a tracheotomy tube; the others are all accessory, but are useful to have and to employ.

Amongst these I will mention particularly a faradic battery for restoring suspended animation, a pair of blunt retractors, a tenaculum, a piece of sheet spunk, and a syringe with a graduated nozzle. In performing the operation it is more convenient to stand on the right side of the patient, and if it be day-time, let the light come from a window in front. The primary incision should be quite long—say from one and a half to two inches, and as nearly as possible on the median line. This may be marked with a pencil. After the first incision is well made, let nearly all the ulterior dissection be carried on with the handle of a scalpel, or better still, Hamilton's dry dissectors. The thyroid plexus of veins, if they cannot be pushed aside, should be torn through. And in like manner the isthmus is to be treated. Some authors have feared hemorrhage from the isthmus, and have counselled passing a double ligature underneath and dividing between. This I believe unnecessary, unless the blade of the knife be used, in which case it certainly is more prudent. Let it be a cardinal rule, which is to be observed as far as practicable, that the trachea is never to be opened unless the hemorrhage be first arrested. When it is ready to open, and particularly with small children, fix the larynx and trachea by means of a tenaculum, and, after drawing it forward with a slight degree of force, puncture it with the bistoury and incise its walls from below upward. If there be subsequent hemorrhage, pass a piece of spunk under the shield of the tracheotomy tube and compress on either side of the tracheal wound. In rare instances we shall be compelled to withdraw the canula and introduce one of larger calibre. If the incision has been a long one—and it is better to err in this way than in an opposite direction—place a few points of suture and cover them with a square piece of sheet lint greased on the applied side, and partially bisected so as to pass one portion under either side of the shield of the canula. The application of the lint avoids the irritating effects from the constant contact of sputa. Before speaking of the after-treatment, I would like to say a few words in regard to the proper canula to employ.

The old-fashioned canula, curved like the segment of a circle, has the serious disadvantage of tilting upward and backward by its inner extremity, and thus causing ulceration of, and sometimes serious hemorrhage from the trachea. This may be obviated by a Durham's tube, which shows at its bend a right angle, and not the ordinary circular curve. Unfortunately the inner canula of the Durham tube is segmented, and one of these segments has been known to become detached and fall into the trachea. Such an accident might of course be fatal. By constant care and repeated examination of the condition of the inner tube, it might be worn for a long while with almost absolute safety. Besides, after a time it is not necessary to wear an inner tube at all, and in many instances even the outer tube is merely intended to be worn temporarily. The great objections to the hard rubber tubes are: 1. They corrode more or less rapidly. 2. They may and have become detached and lodged in one of the primary bronchi. 3. They do not allow a sufficient column of air to pass in proportion with their outside diameter.

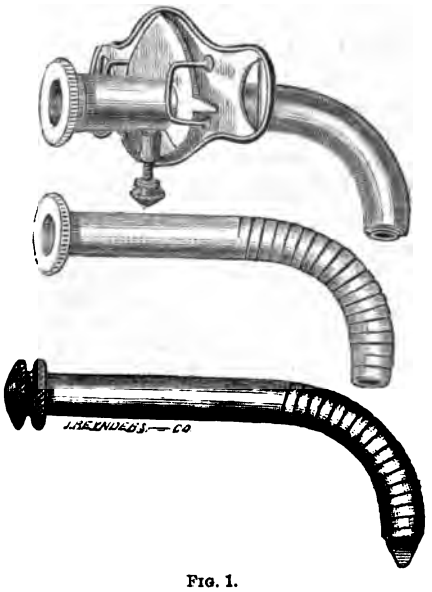


Fig. 1.

As regards the ulterior care of the patient, it is well, and indeed necessary, to have a constant attendant during the first two days, whose business it is to watch the breathing and cleanse the inner tube from time to time by means of a chicken feather. If the inner tube become very much choked up, it should be removed and thoroughly washed in water containing a small quantity of some alkali. When reintroduced it should be done with gentleness, so as *not* to cause unnecessary cough and irritation. Steam, from a croup-kettle or other convenient source, and in moderate quantity, may be permitted in the room when the mucus or other discharge from the trachea and bronchi is viscid and tenacious. On theoretical grounds, however, I am opposed to its immoderate use, as is so frequently done, because I believe it will increase the difficulty of breathing it is intended to ameliorate.

When a tube is worn permanently, it is preferable to introduce a cork in the outer orifice rather than to wear any kind of valvular contrivance, which either causes annoyance by its ceaseless noise, or quickly gets out of working order, and is then worse than useless.

When a temporary tube is withdrawn for the first time it should always be done with a considerable degree of precaution, and if it is left out too long it will be often difficult to reintroduce it. The wiser plan to follow is never to take out a temporary tube, unless it is essential so to do, so long as there is good reason to believe that the wound will not remain patulous at least for several minutes. In cases in which patients have been operated upon for membranous laryngitis, this condition usually requires four or five days to be reached. Whenever the patient goes out, or into a cooler or damp atmosphere, a light scarf should be worn in front of the tracheotomy tube, so as to ward off the risk of catching cold. For a similar reason it is necessary to have the bed-room kept warm for several days after the operation is performed, and scrupulously to avoid draughts or chills due to insufficient clothing. The accidents to be

avoided during tracheotomy are several in number, as well as the complications which may arise subsequently.

Amongst the former I might mention spasm of the glottis from a faulty position of the neck, entrance of air into a large vein, and almost instantaneous death due to reckless haste and want of proper precaution; inability to introduce the tracheotomy tube for different reasons, the more frequent of which is a too short or too lateral incision of the tracheal walls, and last but not least, the inpouring of blood into the air-passages, when the hemorrhage is profuse after the opening of the trachea, and cannot be quickly arrested. After employing pressure, cold, styptics, etc., in this last accident, do not forget to introduce a suction-syringe into the outer orifice of the canula, and withdraw whatever of blood can thus be taken hold of. As a last resort, as I have already mentioned, make use of the faradic current and continue to apply it so long as there is any evidence of lingering vitality.

Amongst subsequent complications it is proper to note those which may arise in connection with the canula, which may become detached as previously remarked, or may be, if too short, thrown out of the trachea during a paroxysm of coughing. This accident occurred twice with the first patient I have shown you this afternoon, and on one occasion he was very close to suffocation on account of pressure of the trachea by the canula, which was still in the wound and abutted as it were against the tracheal walls. Lung complications of different sorts—bronchitis, pneumonia, collapse—are to be dreaded during the first few days following the operation, unless special care be observed. They are to be treated, if they declare themselves, according to ordinary principles.

If, owing to the small size of the tracheal wound, or to the length of time and difficulty of introduction of the canula, emphysema of the neck occurs, it is absolutely necessary to have a tube of more than the ordinary length, so that the trachea can be reached and filled by it. If the canula become obstructed with false membrane or inspissated mucus, try first to remove it with a pair of long, curved, narrow forceps, and if this means fail, do *not* hesitate to remove the inner, and then the outer canula, if required.

It is often a useful thing, both during the operation and at a later period, to have a guide for the outer canula, so that all difficulty arising from the use of the ordinary form of dilator may be obviated.

FIG. 2.

This I have accomplished with the guide which I hold in my hand, and which was constructed for my use more than a year ago. It is not an original idea, but is none the less practical, and I commend it strongly to you all. My second patient, who has carcinoma of the larynx, I will speak of at our next meeting.

OLEATE OF ZINC, either as an ointment or in solution, is highly recommended by Dr. Crocker, of London, in eczema, chronic ulcers, etc.

## AN OBSCURE CASE OF ABDOMINAL DISEASE.

A CLINICAL LECTURE

*Delivered at the Pennsylvania Hospital, on December 18th, 1878.*

BY JAMES H. HUTCHINSON, M.D.,

ONE OF THE ATTENDING PHYSICIANS OF THE HOSPITAL.

(Prepared for THE MEDICAL RECORD.)

THE HISTORY AND SYMPTOMS OF THE CASE—ABDOMINAL SWELLING WITH ASCITES — ASPIRATION — THE DIFFERENTIAL DIAGNOSIS BETWEEN CIRRHOSIS OF THE LIVER AND CHRONIC PERITONITIS — THE CASE PROBABLY AN INSTANCE OF THE LATTER DISEASE—ITS TREATMENT.

I SHALL bring before you this morning a patient who has been in the medical wards of the hospital for nearly a year, and consequently under the care of all of my colleagues. Notwithstanding the length of time she has been under observation, there is still some difficulty in deciding as to the nature of the disease from which she is suffering, or, to speak more correctly, has been suffering, because at present there is no evidence of the existence of active disease, but rather of the results of disease. Without further prelude I will call your attention to the important parts of her history:

She is a Swede by birth, about 30 years of age, and was at the time her illness began employed as an attendant at the department for the insane, of this hospital. She appears to have no hereditary tendency to disease of any kind. Her mother died from the effects of a miscarriage, but her father is living, and, although advanced in life, is in good health. Of her brothers and sisters, two died in infancy; another at the age of fifteen, of what would seem to have been acute Bright's disease; and a fourth, of consumption, of which, she assures us, there has not been another instance in her family. She herself had a perfectly healthy infancy and childhood, interrupted only by an attack of measles, from which she made a good recovery. At the age of nineteen she menstruated for the first time, but this function seems to have been in the main healthily performed afterwards up to the time of her marriage, seven years ago. Her only child was born about a year after, and is consequently now six years of age. He, it is said, is perfectly healthy, and so, she assures us, is her husband.

In the summer of 1876, while in charge of a violent patient, she was thrown with some force against an iron bedstead, striking the lower part of her abdomen. This injury was followed by a good deal of pain and tenderness in this region, and by menorrhagia, which continued up to the time of her admission, and has occasionally been present since. She attributes a good deal of importance to this injury, and says that she has never felt perfectly well since. It appears, however, that it interfered with her duties as attendant for a short time only, as she continued in the employ of the hospital, often losing sleep and rest, until a short time before her admission here.

When she first came under our observation, it is said that pain and tenderness over the abdomen, at first more marked on the right side, below the position of the liver, were the most prominent symptoms; together with this, there was an occasional hemorrhage from the womb. Shortly afterwards a gradual enlargement of the abdomen was detected, which, upon examination, was found to be due to an effusion into

the peritoneal cavity. At the time, percussion showed that the hepatic dulness was diminished in extent. The urine was passed in small quantities—sometimes not more than a pint a day being obtained from her, but it contained neither albumen nor sugar, and appears to have been healthy in every respect. The symptoms do not seem to have presented any variety at first; the pain and tenderness persisted, and the abdominal effusion increased gradually in amount, until it was thought better on the 24th of last June to remove it by operation, when nine quarts of a clear yellow liquid were drawn off. Since this time there has been, I am told, no evidence of a reaccumulation, and at the present time I feel quite sure that there is no liquid in the abdominal cavity.

There was also at one time a slight effusion into the right pleural cavity, but this must have been long ago absorbed, as there is no evidence of its existence now. Moreover, a careful examination of the chest shows that there is no disease either of the lungs or of the heart. One of my colleagues some time ago recognized the presence of endo-cervico metritis, and this still exists, though in a less degree.

These, then, were the prominent symptoms presented by the case when I first took charge of it about six weeks ago. Since that time I have studied it closely, but I am willing to admit that I am still puzzled by it. In order that I might examine her more thoroughly, I placed her under the influence of ether, but could not even then discover any condition which I could regard as positively the cause of the previous effusion. In the right iliac region there was a feeling of greater resistance to the fingers than upon the left side, and when I made a vaginal examination, I thought I could feel an indurated mass on the right side, between the fingers in the vagina and the hand on the abdomen; and the other physicians who made this examination with me, confirmed me in this impression.

To recapitulate the prominent symptoms presented by the case: we have in a strictly temperate woman, following an injury of some severity, menorrhagia, pain and tenderness over the whole abdomen, and a gradually increasing ascites, which, however, after having been removed by tapping, never reappeared. With these there are at the present time obstinate constipation, requiring the constant exhibition of cathartics to overcome it; diminished dulness in the hepatic region, especially marked in the right mammary line, but not so much so in the infra-axillary region; and the signs of slight enlargement of the spleen. The stools are, however, of good color; in other words, there is no reason for believing that there is diminished secretion of bile. The patient still passes rather a scanty amount of urine; but its reaction to every test is healthy. While there have been at times symptoms indicative of gastric disturbance, these have not been marked, and at the present time may be said to be absent.

### THE CASE NOT ONE OF CIRRHOSIS OF THE LIVER.

Such is, in brief, the history of our patient. Can we explain the symptoms which she has presented since her admission into our wards, and especially the occurrence of ascites? I need hardly say to you, that the most frequent cause of abdominal effusion, especially when unaccompanied by dropsy elsewhere, is disease of the liver, particularly that form of it which is known as cirrhosis. This disease is, as you are aware, marked by contraction of the liver, and, in consequence of obstruction of the hepatic vessels, by great congestion of the portal circulation. This congestion must, of course, relieve itself in some way, and this is generally by effusion of serum into the peritoneal cavity. There are certainly some of the symptoms of this condition present—for instance, there is diminished hepatic dulness, and there are also the signs of splenic enlargement; the latter is, however, not decided, since it is only discoverable by careful percussion. I am therefore disposed to attach very little importance to it as a sign in this case. If there existed decided congestion of the portal circulation, the spleen would unquestionably be much more enlarged than it is.

There is also no distention of the superficial abdominal veins, such as is found in this condition, and which we should expect to see in a case in which some relief to the congestion of the portal circle had occurred as indicated by the failure of the effusion to reaccumulate. Moreover, the patient is a strictly temperate woman, and in making this statement I do not wholly rely upon her assertion to that effect, as it is corroborated by those who knew her in the other department of this institution. Now, while I will not go so far as to say that cirrhosis is never met with in a temperate person, I unhesitatingly maintain that its occurrence is rare. Many of the other symptoms of this disease are also absent. I have called attention to the fact that there are no evidences of disturbed digestion other than the obstinate constipation. There is also none of that peculiar pallor of the surface so often seen in cases of cirrhosis (especially in those which have run so prolonged a course as this has), which to an experienced eye is often alone sufficient to indicate its presence. It is rare, too, to find patients complaining of so much pain and tenderness upon pressure as has been persistently present in this case since I assumed charge of it; I certainly have never met with them in the many cases I have seen here and elsewhere. Occasionally, after tapping, a little suffering is caused by an examination of the abdomen; but this usually ceases in the course of a day or two. Jaundice has also never been present even in the slight degree in which it is occasionally seen in cirrhosis.

### CURES IN ADVANCED CIRRHOSIS INFREQUENT.

Finally, cures in advanced cirrhosis of the liver must be very infrequent. They have certainly never come under my observation, and I do not find them reported as occurring by writers on diseases of the liver. Even an arrest in the course of the disease is rare when it has gone so far as to produce ascites. Indeed, it appears to me inconceivable that there can be contraction of the liver in this case in the absence of dropsy, of serous diarrhœa, and of an increased secretion of urine. The diminished dulness in the hepatic region is certainly difficult to explain, I admit, on any other hypothesis; but it alone does not warrant the diagnosis of cirrhosis. It may possibly be due to a slight alteration in the position of the liver, brought about in a way I shall later explain.

There is a condition which is known as peri-hepatitis, which also gives rise to abdominal effusion. In this disease the obstruction in the portal circle occurs as the result of inflammation, not in the interior of the liver, as in cirrhosis, but at the point of entrance into it of the portal vein. But this disease is characterized by a rapid accumulation of fluid, so that it is often necessary to remove it as often as ten times in the course of the year. Not many weeks ago I brought before you the liver of a patient who had died of this disease. You will recollect that I then told you how frequently it had been necessary to have recourse to the operation of tapping, and that I alluded to an-

other case which had been under my care with precisely the same history. I also told you that in the former case there was distention of the superficial abdominal veins, and decided enlargement of the spleen, both clearly indicating the existence of portal obstruction, and rendering the diagnosis comparatively easy. I will not dwell further upon this disease, because much that I said while discussing cirrhosis is equally applicable to it.

I mention, simply for the purpose of dismissing it from further consideration, cystic diseases of the ovaries as a possible cause of the dropsy in this case, because there never seems to have been any doubt in the minds of my colleagues that the fluid was in the peritoneal cavity, and the recognition of this fact is generally sufficiently easy. Moreover, it is certainly rare for an ovarian dropsy to disappear after a single tapping.

#### THE CASE PROBABLY ONE OF CHRONIC PERITONITIS.

We have therefore to find some other cause for the ascites. In reviewing the history of the case, it seems to me more probable that this was due to chronic peritonitis, rather than to any other cause. It was formerly doubted whether chronic inflammation of the peritoneum could exist independently of tubercles, but at the present time the majority of good observers agree that it does occasionally occur. Indeed, Dr. Hilton Fagge goes so far as to say, in the twentieth volume of Guy's Hospital Reports, that for every two cases of cirrhosis of the liver treated in the wards of that hospital there is one of chronic peritonitis, causing ascites. This, judging from my own experience, is a statement which few hospital physicians would corroborate. Still, it shows that the disease is met with occasionally, and justifies us in attempting to explain the symptoms in the present case by referring them to it as a cause.

We have had here, you will remember, an injury to the abdomen which gave rise to menorrhagia, and probably also to inflammation of the womb. At the present time there is only endo-cervico metritis discoverable; but an examination made shortly after the blow might possibly have revealed the existence of a more extensive lesion. Now this metritis, perhaps in consequence of overwork, probably set up an inflammatory process in the adjacent peritoneum, which may have gradually extended until it had involved a large portion of the membrane. I look upon the presence of the indurated mass in the right iliac region as confirming this view. Indeed, there is nothing in the case which can be regarded as opposed to it, except the diminished hepatic dulness, which is probably due to a slight alteration in the position of the liver, brought about, possibly, by the results of inflammation in its neighborhood. Chronic peritonitis is often attended by but little effusion, but that this is not invariably the case is shown by the fact that many cases are reported in which it has been necessary to have recourse to tapping. In most of these cases, also, but one operation was required. The inflammation subsiding, leaves the membrane spoiled, as Sir Thomas Watson expresses it, for the purposes of absorption, but with no tendency to pour out any more liquid. The pain and tenderness which have been such prominent symptoms, I need not tell you are common enough in chronic peritonitis, and so is constipation. The disease as it is, does not necessarily cause obstruction to the portal circulation—need not give rise to distention of the superficial abdominal veins. The fact, too, that the patient is slowly improving, is in favor of the view I am now taking of the case. There is no fever, and no excitement of the pulse; indeed, no active symptom of any kind. The discomfort which she undoubtedly suffers is therefore probably due to the presence of adhesions which interfere with the functions of the bowels.

The disease is, in all likelihood, not due to the presence of tubercles in the membrane, because there are no evidences of the existence of consumption, and, moreover, the patient is not hereditarily predisposed to this disease.

In regard to the prognosis of this case, the improvement which has taken place since it has been in the hospital, and indeed during the last few months, leads me to hope that the patient will eventually recover, if not perfect health, at least strength enough to enable her to gain her livelihood.

#### THE TREATMENT OF THE CASE.

The treatment in this case, if my view of its nature is correct, must be confined to sustaining the patient's strength and relieving her of the constipation and pain, both of which are the cause of a good deal of suffering. For these purposes she has taken various tonics and purgatives, as well as anodynes, since her admission into our wards. At the present time she is taking a pill containing one grain each of extract of aloes and extract of hyoscyamus with one-tenth of a grain of extract of nux vomica—a prescription which was original, I believe, with Dr. T. G. Thomas, of New York, and which, so far, has answered the purpose for which it was prescribed. As the urine has been of late rather scanty, she has been taking acetate of potassium and compound spirits of juniper. The pain yields only to morphia, either given by the mouth or hypodermically. Various applications have been made to the abdomen, but very little relief seems to have been obtained from them. At an earlier stage of the disease it might have been well to have used some mercurial ointment. Dr. Fagge speaks highly of the *linimentum hydrargyri*, but the time has passed when it would be at all likely to be of any service.

I have thus shown, as fully as my time will allow, the difficulties which surround the diagnosis of this case. It may be that I have come to a wrong conclusion in regard to its nature, and that it will eventually prove to be one of disease of the liver, but with the present light we have upon it, I cannot think this at all probable.

[Since the delivery of the above lecture, the patient has steadily continued to improve, and has gained so much strength that her detention in the hospital is no longer necessary. Her attacks of pain have become much less frequent and severe, and the menorrhagia has been to some extent relieved. Her appearance at the present time indicates an almost entire restoration to health, and is certainly very different from that which usually accompanies serious organic disease of the liver.

No important change has been made in her treatment except that she has been taking for some time past Trommer's Extract of Malt, from which she seems to have derived much benefit.

It has recently come to light that one of the attending physicians of the hospital, who saw her while the acute symptoms were still present, believed that she was suffering from entero-peritonitis. This fact, of course, fully confirms the lecturer's view of the nature of the case, and renders it almost certain that his diagnosis was correct.—*Reporter.*]

# Original Communications.

## AN INSTRUCTIVE CASE OF OVARIOTOMY.

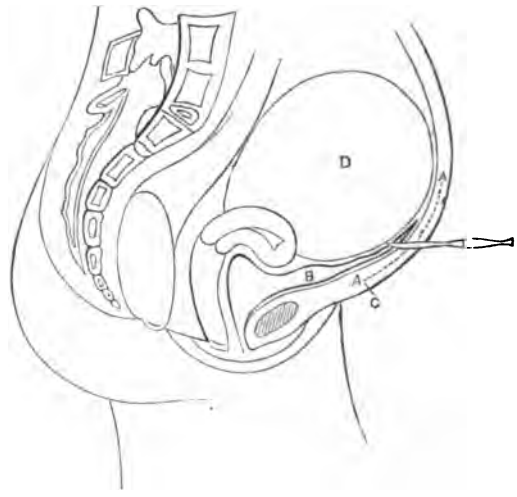
### THE WALL OF A MISPLACED BLADDER INVOLVED IN THE INCISION—DEATH.

By LEROY McLEAN, M.D.,

SURGEON TO TROY HOSPITAL, TROY, N. Y.

Miss A., æt. 24, had always been healthy previous to 1873. During the spring and summer of that year she was under treatment for uterine disease by her family physician. At this time she suffered from pelvic pains and "bloating of the abdomen."

In the winter of 1873 was perceived the first indication of a growth in the left iliac fossa. The development of the tumor was slow. In 1876 it had attained such dimensions as to displace the neighboring viscera, causing the usual symptoms—dyspnœa, flatulency, aggravated digestion, etc. The catamenia continued with more or less regularity. I first saw her in August, 1878. She was not much emaciated, though the expression of countenance was anxious. The form of the abdomen was quite uniform, with a slight bulging above the umbilicus. She measured, at the umbilical level, thirty-six inches. The percussion sound was dull over the anterior surface of the abdomen. Fluctuation could only be distinguished over a small portion to the left of the median line below the umbilicus. The sound entered but an inch into the cavity of the uterus. Marked anteflexion of that organ could be detected by vaginal examination. Oct. 7th, assisted by Dr. Schuyler, and Drs. Vanderveer and Merrill, of Albany, I operated for the removal of the tumor. Before proceeding to the operation a large aspirating-needle was introduced to the left of the median line, and a quantity of fluid, having the consistency and color of molasses, withdrawn. The bladder was then evacuated. The incision was commenced half an inch below the umbilicus, and extended down two and one-half inches. At the lower angle of the incision, at a depth of three-quarters of an inch from the surface, I cut into what appeared to be a cyst in the abdominal walls, which contained about two drachms of pale fluid. The edges of the incision did not retract as they usually do when the abdomen is tense, and not liking the indications presented, and not being thoroughly satisfied as to what we had to deal with, the incision was carried upwards to a point on a line and to the right of the umbilicus, when the unmistakable ovarian sac was reached. Using the finger as a director, the opening was completed below, and the tumor removed. Suppuration had begun in a portion of the sac. It had two strong omental adhesions, one of which necessitated the application of a ligature. The tumor was of the multilocular character. The pedicle was secured with a silk ligature, and returned, it being too short to admit of clamping. Then was discovered the condition shown in the drawing, and the injury done to the bladder, it having been cut through on its anterior and posterior surfaces down to the point marked "C"—the lower end of incision. The anterior surface was strongly adherent to the abdominal wall. It was not adherent to the tumor. In completing the incision from above downwards the finger used as a director had passed behind the bladder (its walls being then in *close contact* from pressure of tumor behind), and the injury done as shown. The bladder was repaired with interrupted silk sutures. The adhesions of its anterior surface to the abdominal walls were not disturbed. Abdominal incision closed with silver wire.




The patient was carried to her bed, and one hour after a soft rubber self-retaining catheter (which we were obliged to send for at some distance) introduced, and two ounces of urine withdrawn, showing that the bladder was still capable of performing that portion of its functions. The catheter was left *in situ*, the urine being thus allowed to escape as soon as secreted. Previous to the introduction of the catheter she had expressed a desire to micturate.

At 10 P.M., ten hours after operation, her condition was good. She had rallied, but complained of feeling very tired. She expressed a desire for food. Pulse, 112; temp., 100°.

5 A.M.—Pulse, 125; temp., 101°. She has begun to show evidences of approaching dissolution. She gradually sank from this hour, death occurring at 7 P.M., thirty hours from time of operation. Her temperature did not at any time exceed 101⅓°. The secretion of urine was normal.

*Post-mortem*, in the presence of Drs. Vanderveer, Ward, Snow, Edward Hun, and Schuyler: Primary union of abdominal incision; no evidence of peritoneal inflammation; the bladder intact, good primary union, and no escape of urine into the cavity of the abdomen. The effort of nature at repair beautifully shown in portion of omentum which had been ligated—a fibrous clot had been thrown out which covered the ligature and formed a strong adhesion of cut end to a fold of the intestine. There was no evidence of sloughing of the pedicle. The adhesions of bladder to abdominal wall so firm that they *cannot be separated without tearing that viscus*. The uterus was anteflexed and bound down by strong adhesions.

The only theory I have to offer in explanation of the malposition of the bladder is, that the uterus having been anteflexed to the degree it was, the bladder under distention would naturally enlarge in the direction where the least resistance was offered. Her friends state that in 1876 she went from here to Chicago, and that she did not leave the cars during the journey. Now it is well known that women will sometimes go for many hours without micturating, and it may have been so with our patient, and as a result the distended bladder crowded itself upwards between the tumor

and the abdominal walls, and was held there mechanically by pressure of the tumor, after it had been emptied. It may be that the condition was a congenital one.

Had the tumor been adherent to the bladder there might be no doubt as to the cause of the anomaly. It might be suggested, as a wise procedure hereafter, to pass a sound into the bladder and the exact condition of that organ ascertained before operating.

## A CASE OF EXOPHTHALMIC GOITRE.

By JOHN A. LIDELL, M.D.,

of new york.

This disease is by no means common, and therefore the publication of the following case may do some good. The notes were taken at the time. Miss C., a maiden lady in good circumstances, about thirty-four years old, of stout build, dark hair, dark eyes, and brunette complexion, whose home was in the country, applied to me for treatment *March* 15, 1873. She has a large bilobate tumor in the throat, obviously developed in connection with the thyroid gland; the right lobe considerably larger than the left. Eyes also much protuberant, giving her a strange, staring appearance, with pupils somewhat dilated, but respondent to light. Says she first noticed the swelling in her throat about three years ago. During the last year, however, it has grown very rapidly. First noticed that her eyes were becoming too prominent about one year ago. The protrusion is increasing, and at times the eyeballs feel as if they would burst out of her head. Then she gets relief by pressing them back into the orbits with her fingers. As to the goitre, it sometimes is considerably larger than at others; it sometimes, also, gives rise to choking sensations and difficult breathing, or suffocative attacks, with dread of impending death. Is very nervous and easily fatigued. Countenance and lips rather pale. Is subject to dizziness, and is short-breathed, especially on making exertion. Is *not* liable to palpitation of the heart. Menstruation regular, much more so than formerly. Appetite good. Bowels inclined to be constipated. Suffered much from bleeding piles last fall, but of late not at all. Pulse about 90, full and hard. Heart beats strongly, but without abnormal murmurs. On examining the goitre with my fingers I find that each lobe of it pulsates synchronously with the heart, distinctly, strongly, and expansively, *i. e.*, in an outward direction, and imparts to the touch a jarring or thrilling sensation. On listening to it with a flexible stethoscope, a rather loud bellows-murmur is heard in every part of each lobe. Advised the application of ice to the goitre daily, and the internal administration of the following:

℞. Pulv. digitalis (opt.)..... gr. xij.
Ferri redacti (Quevenne)..... gr. xviij.
Mucilag. g. tragacanth..... q. s.
Ut ft. pil. æqual. No. 18.
S.: Take one pill three times a day, before meals.

Also:

℞. Pil. rhei comp. (sugar-coated), No. 6.
S.: Take one pill daily after dinner, until the constipation is relieved.

*March* 21.—Patient feels rather better, and is less nervous; has not had an attack of choking since she called on the 15th; goitre unchanged; has not applied the ice; pulse 90 (by count) and soft. Prescribed the following:

℞. Extract. ergot. fluid. (Squibb),
Tinct. digitalis..... ää ʒ iij.
S.: Take ten drops three times a day, in water.

Also:

℞. Pil. rhei comp. (sugar-coated), No. 6.
S.: Take one pill daily at bed-time.

*March* 29.—Patient says she is less nervous; finds now that she can write without shaking; exophthalmos the same; pulse 90, by count, but larger; goitre smaller; has much pain in uterine, sacral, and lumbar regions, apparently due to the ergot; says that on the whole she feels decidedly stronger and better. Applied the ice yesterday to the goitre, which, she thinks, caused it to shrink, but gave her a severe fit of suffocative breathing that followed the application thereof. Ordered the ice to be applied again on Monday (31st), and to call on me Tuesday.

Also:

℞. Pulv. digitalis (opt.),
Quiniæ sulph..... ää gr. xxiv.
Mucil. g. tragacanth..... q. s.
Ut ft. pil. æqual. No. 24.
S.: Take one pill three times a day.

*April* 3.—Patient says she feels still better; is decidedly stronger and less nervous; expression of countenance less anxious and more composed; eyes rather less protuberant; pulse less frequent and more natural in volume; after resting it is 84 by count; the goitre, especially its right lobe, decidedly diminished in size, and firmer in feel; bellows-murmur in right lobe also not so loud. Injected subcutaneously over right lobe of the goitre six minims of Squibb's extract. ergot. fluid. It caused some burning pain at the place of injection, but not so much as I had expected. Directed the pills of digitalis and quinine to be continued. She had failed or neglected to apply the ice again, partly from want of facilities to do it, and partly from dread of its possible effects, inasmuch as on a previous occasion it was attended with a paroxysm of choking and extreme dyspnœa.

*April* 25.—Both lobes of the thyroid (goitre) now free from thrill, quite hard, and considerably diminished in size. Prescribed:

℞. Granulæ acid. arseniosi (sing. gr. $\frac{1}{100}$, No. 100.)
*Signa:* Take one granule night and morning.

On the next day she returned to her home in the country feeling pretty well, since which time I have not seen her. I heard, however, through one of her friends who had seen her, that the improvement was permanent.

What struck me most in the management of her case was the good effect of the ergot, especially when it was employed subcutaneously at the seat of the swelling in her throat.

I have delayed the publication of her case because, hitherto, I have hoped to see her again, and to find by personal examination the result of the treatment.

46 Washington Square, January 2, 1879.

Ferments in Pancreatic Juice.—Th. Defresne (*Répertoire de Pharmacie*) has separated three different ferments from the pancreatic juice, each of which has different functions and properties: *Amylopsine*, which converts starch into sugar; *steapsine*, which splits up fats; *myopsine*, which dissolves albumen.—*The Doctor*, Nov. 1, 1878.

## A CASE OF POISONING BY ACONITE.

By F. H. O'BRIEN, M.D.,

NEW YORK.

The patient, Miss M——, æt. twenty-four, unmarried, took through mistake half a drachm of the tinct. aconiti rad., which was followed in twenty or thirty minutes by a sense of warmth in the stomach, nausea, and oppression of breathing. Shortly after this followed numbness, tingling, and slight muscular weakness. She did not attribute her feelings to the drug, and in one hour from the time it was taken (4.30 P.M.) the dose was repeated. She started soon afterwards to walk a distance of two miles, and did not complain until about half way. On reaching her destination she began to stagger, and was soon completely prostrated. Her voice became very weak, and she complained of cephalalgia and lancinating pain in different portions of the body, but particularly in the joints. I was sent for, and arrived at 6.40 P.M. Learning that the patient had taken a poisonous dose of aconite, I administered the usual emetic, which was swallowed with great difficulty. I sent for Dr. Wm. H. Studley, who quickly arrived. I found the patient in the following condition: Axillary T. 97½°, P. 32; R. 10. Pupils dilated, extremities cold, loss of consciousness, extreme pallor of face with expression of great suffering, and there was a twitching of the mouth and eyelids. Emesis was produced. The stomach contained a considerable amount of fluid, which had an odor of alcohol. The retching continued, and her condition each moment grew worse, the pulse becoming frequent and irregular, and respiration more difficult. By consent of Dr. S. I injected hypodermically fifteen mins. Magendie's sol., just after which (not exceeding one minute) the symptoms became more alarming still; she having a slight convulsion. There was a spasmodic contraction of the laryngeal muscle, respiration ceased, and the pulse was imperceptible. Dr. S. did not observe me inject the morphia, and remarked that if I had not already done so it was useless to inject it.

She was a dying woman; respiration had ceased, the feeblest pulsation could not be detected, the body was cold to the touch, and we had every evidence of impending dissolution. We had lost all hope in the case, but were endeavoring to detect a feeble impulse of the heart, when suddenly and to our surprise the pulse sprang up, about the rate of forty per minute. The laryngeal muscles were relaxed and respiration began. Very soon the cheeks were flushed, and heat returned gradually to the extremities.

The thermometer was again placed in the axilla, and registered 98½°. The retching continued, and in half an hour the pallor returned, there was general muscular tremor, and the pulse became frequent, and irregular as before. Ten mins. Magendie's sol. was injected, and an enema containing twenty grains carbonate of ammonia and one ounce of brandy. She soon rallied as before; this time recovering consciousness, and complained of cephalalgia, burning sensation in the stomach, and severe pain in different parts of the body. At ten o'clock P.M. I injected ten mins. more Magendie's sol., which seemed to quiet her, and at twelve o'clock she was asleep. The bladder had been evacuated four times since eight o'clock.—15th, six A.M., T. 99°; P. 80. Has vomited only after the enemas, which were repeated at intervals of two hours. She complained of great muscular soreness, and movement of the body is painful. She is very weak, her grasp being scarcely perceptible. Champagne and mucilaginous drinks were given, and the enemas continued, but at longer intervals.

Four P.M., T. 99½°; P. 72. Vomiting has ceased, and but little nausea. Diuresis has continued, and she complains for the first time of pain in the region of the kidneys, paroxysmal in character, lasting but for a few moments at a time.—16th, ten A.M.: T. normal; P. 80. Has rested well since evening before; diuresis diminished; no pain in region of the kidneys; cephalalgia and muscular soreness remaining.

17th, ten A.M.—Patient much improved; T. normal, P. 80. Has taken food in fluid form with relish. Muscular soreness diminished, and but slight cephalalgia, which remained for several days. Two days later she complained of a peculiar sensation at the roots of her teeth, and diarrhœa, which symptoms lasted but a short time. The patient gradually improved, the muscular soreness being last to disappear. I will not speak of the physiological action of opium and aconite, as time and space will not permit; but I think that the case presented illustrates the antidotal virtue of opium in aconite poisoning.

No. 1115 Madison Ave., Harlem.

# Progress of Medical Science.

On the Treatment of Morbus Coxarius by a New Method.—Dr. Joseph C. Hutchison, in an article (*American Journal of Medical Science* for January, 1879), advocates the following plan of carrying out the indications for the treatment of morbus coxarius, which he considers to be: (1) to secure immobility of the joint; (2) to procure extension of the limb; (3) to take off from it the superincumbent weight of the body; (4) to provide means to enable the patient to take exercise in the open air. He considers that immobility is obtained by the rigidity of the joint, and that this continues until nature says it is no longer necessary. To obtain extension of the limb and to remove the weight of the body he resorts to the following device: On the shoe of the sound limb an iron sole is applied, three inches high, so as to raise the foot from the ground. This elevated shoe and a pair of crutches constitute the apparatus. As the patient stands on his crutches the diseased limb is suspended. The shoe should be high enough to prevent the toes of the affected limb from touching the ground. By these simple means we fulfil all the indications for the mechanical treatment of hip-joint disease. Immobility is obtained and friction prevented in the manner above indicated—chiefly by rigidity of the periarticular muscles. Extension made by the weight of the suspended limb, which is greater than the weight ordinarily employed for extension, is quite sufficient to relieve the inflamed parts from pressure and pain, and to overcome deformity of the limb even though it be considerable; the weight of the body is removed from the diseased joint, and the patient can enjoy all the benefits of open-air exercise.

Another Anti-emetic.—The value of spiritus nucis juglandis, "spirit of walnut," in vomiting, is much insisted on by Dr. E. Mackey. He has used it in various forms of vomiting, and found it successful after other things failed. He gives it in drachm doses three times a day.—*The Practitioner*, Dec., 1878.

Double Hearing—Autophony and Tinnitus Aurium—Causes of.—Dr. Samuel Sexton (Transactions of the American Otological Society, 1878) seeks to

elucidate some of the hitherto unexplained problems of audition, especially those connected with double hearing, autophony, tinnitus aurium, hearing better in a noise and the contrary. He believes that these conditions most frequently depend on derangement of the conductive apparatus rather than on pathological conditions of the inner ear, as is usually maintained. The various anomalies of audition, double hearing, etc., are of much greater frequency than is generally supposed. On examination it is found that some patients can hear their voice in two distinct ways—first by the medium of the external air and external meatus after the sound has issued from the mouth; second, by conduction from the vocal cords directly through the intervening tissues. Dr. Sexton believes that this occurs in cases where the articular surfaces of the malleo-incudal joint are separated as a result of disease. When this occurs in one or both ears much confusion is apt to result.

Musical persons sometimes complain of hearing musical notes falsely. Most authorities explain this by referring the abnormality to the auditory nerve itself. Dr. Sexton, however, believes it is due to imperfect conduction of the sound by derangements of the conductive apparatus.

Tinnitus aurium he explains as due to the sound waves of circulation in the neighborhood of the ear—but not in the labyrinth—which ordinarily are not heard, but when the malleo-incudal joint is separated these vibrations of sound reach the acoustic nerve through the incus and stapes. Dr. Sexton concludes that the operation suggested by Bonnefont and others, establishing a permanent opening in the drum-head, is not likely to prove as frequently useful as was at first anticipated. He further believes that the Politzer air-bag is sometimes liable to do injury by unduly stretching the membrana tympani when atrophied by disease.

Treatment of Wounds by Dry and Infrequent Dressings, Rest, and Pressure.—Mr. Sampson Gamgee, in a clinical lecture in the *Lancet* for Dec. 21, 1878, advocates the treatment of wounds by dry and infrequent dressings, uniform pressure, and absolute rest. The following is his plan: He unites the edges of the wound with silver sutures; a gauze and oakum pad is then placed over the wound, the limb enveloped in cotton-wool sufficiently to protect the bony prominences, and immobilized by lateral and posterior moistened pasteboard splints from foot to hip. A gently compressing bandage completes the dressing. He gives the histories of three cases of injury about the knee-joint, treated on this plan, and all did well. In one the tendon of the quadriceps extensor was completely divided, the intercondyloid space exposed, and the finger could be passed underneath the patella. The wound was not laid bare until the ninth day; healing was then perfect. There had been neither pain nor rise of temperature. A case of extensive contused and lacerated wound of head was also successfully treated on this plan.

In order to compare this plan with Lister's, Mr. Gamgee lately excised the elbow-joint in two patients on the same day. In one case the skin was unbroken, and in the other a sinus led down to a suppurating joint. He took the latter for the dry dressing, as its condition was not looked upon as a favorable one for the antiseptic method. The suppurating case was also the more unfavorable one of the two because its subject was altogether a weaker man. On the evening before the operation the temperature of these patients was about 98°. November 23d he excised both elbow-joints, making in each case one longitudinal incision. About the same amount of bone was removed from each, namely, of the humerus, radius, and ulna. In the dry case wetting the wound was carefully abstained from. Its surface was lightly brushed over with styptic colloid after twisting one vessel. Fine points of silver suture accurately approximated the edges, except in the centre, where a gap was left for a loop of drainage-tube, which passed through it and the opening on the radial side which had led into the joint before operation. The dressing consisted in strips of lint, soaked in styptic colloid, applied so as to assist the stitches, a gauze and oakum pad outside the joint, a covering of cotton-wool half an inch thick over the whole limb, which was immobilized in the straight position by means of moist pasteboard splints extending from the tips of the fingers to the shoulder, and moulded to the limb under a gently compressing bandage. The other case was treated according to the Lister plan, carried out in all its details. Four vessels were secured with carbolized catgut, the wound united and a drainage-tube of the same thickness as in the first case was inserted. The carbolic case was dressed whenever permeation was observed through the dressings, which was daily for the first few days. The dry case was dressed the first time at the commencement of the fourth day after the operation, when four-fifths of the wound were found healed. On the twenty-second day after the operation, there were about thirty drops of odorless pus next to the wound found in the Lister case. In the dry case the dressings were quite dry, the old sinus had all but closed, and the cicatrix was quite solid for three-quarters of its length; the elbow was flexed at a right angle, and there was no pain. The temperature, pulse, and respiration were higher in the case treated after Lister's plan than the one treated on the dry plan. Mr. Gamgee mentions the fact that the first patient rested better, and had a good night, while the second suffered pain in the arm, greatly intensified at each dressing.

The following is the record of the temperature, pulse, and respiration:

DRY REST CASE.

| | Nov. 24th. | Nov. 27th. | Nov. 30th. | Dec. 3d. |
|---|---|---|---|---|
| Temp... | 102.5° | 98° | 98.4° | 98.4° |
| Pulse... | 96 | 80 | 84 | 76 |
| Resp.... | 84 | 24 | 24 | 26 |

CARBOLIC SPRAY CASE.

| | Nov. 24th. | Nov. 27th. | Nov. 30th. | Dec. 3d. |
|---|---|---|---|---|
| Temp... | 103° | 102° | 99.5° | 98.4° |
| Pulse... | 120 | 108 | 88 | 106 |
| Resp.... | 80 | 24 | 22 | 22 |

A system of treatment which requires that whenever the discharge is seen to come through the dressings, they are to be changed under carbolic spray, is opposed to the great principle of local and constitutional rest, subjects the patient to a great deal of pain and the surgeon to a great deal of trouble.

Treatment of Onychia Scrofulosa.—In the treatment of onychia scrofulosa, which is always accompanied by fungosities, M. de Saint-Germain employs a very simple operative procedure. It consists simply in paring off the end of the finger or toe, as one would trim a quill-pen, removing in one sweep the nail with its matrix, and the superficial portion of the phalanx with the fungosities developed on it. The resulting wound heals very rapidly.—*Jour. de Méd. et de Chir.*

after Feb. 10th. The Austrian Government has forbidden the importation of Russian goods except under quarantine, and is about to issue orders forbidding travellers from Russia to cross the frontier unless provided with passes from the sanitary authorities. The Porte has established a quarantine on the European coast of the Black Sea, and Roumania has decreed a similar course on the delta of the Danube. In spite of these precautions the plague is rapidly spreading, and from all accounts is making its way into western Russia. It would appear, from what we know of the general history of previous epidemics, that the progress of the plague can be stayed very materially by an efficient and careful quarantine. The weight of authority seems to be in favor of the spreading of the disease by indirect communication rather than from person to person. In this respect it bears a striking resemblance to yellow fever and cholera, both of which are controllable by a proper quarantine. It would seem, judging by the reports from Russia, that the government there has only a vague notion of what a quarantine should be. It requires something more than the penning of people in an infected town and shutting off all communication from the outside.

# Reports of Societies.

## THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

*Stated Meeting, January* 27, 1879.

DR. FREEMAN J. BUMSTEAD, PRESIDENT, IN THE CHAIR.

### THE TREATMENT OF SPINAL CURVATURE BY CONTINUOUS EXTENSION.

DR. JOHN A. WYETH read a brief paper upon the above subject, and gave the history of an illustrative case.

*Extension, fixation,* and *rest* were the cardinal principles in the treatment of disease of the vertebral column, and when to those were added hygienic measures and judicious medication, we had the sum total of all the indications. The wheel-crutch and Taylor's brace indicated progress in our knowledge with reference to the treatment of spine disease, but each had its advantages and its disadvantages. The plaster-of-Paris jacket was a great stride in the right direction, and its simplicity attracted attention. Some of us supposed it to be the *ne plus ultra* in the treatment of curvatures of the spine, and that such sufferers had nothing to do but to submit to suspension by the arms and the neck, and be enveloped in plaster to be cured. But had it fulfilled this expectation, and did it meet all the indications? It came nearer than any other method of treatment which had yet been made public; but it had its faults, and those the doctor proceeded to point out. If the grip of the jacket could be uniformly maintained, it would meet all the indications. But it lost its firm hold in from seven to ten days after being applied, and therefore lost its property of maintaining the parts at rest and separating the diseased surfaces. Such result came from two causes:

1. Atrophy of the underlying parts from pressure; and

2d. Softening and relaxation of the plaster, produced probably by absorption of bodily moisture.

The apparatus having yielded, the diseased structures came again in contact; hence arose the necessity of removing and reapplying it, an operation which, according to his experience, was at times painful and annoying. It also made pressure upon the protruding spine, and often made excoriations. Although fenestra were cut, there was danger of the discharge getting beneath the plaster and in turn give rise to excoriation, which required removal, dressing the sores, and reapplication of the apparatus. The method which he presented he believed obviated all those difficulties.

It consisted, in the first place, of a plaster-of-Paris jacket, but the jacket was made in two segments, which came nearly together at the point at which the lesion was situated.

The upper section was applied by commencing about one inch above the seat of the disease, and passing upwards. The rollers would catch upon the expansion of the thorax from below upward, and also upon the muscles of the axillæ and the scapular prominences. Then, beginning just below the seat of injury, another jacket was applied, perfectly independent of the upper one, and extended downward until it caught upon the expansion of the ilium upon both sides.

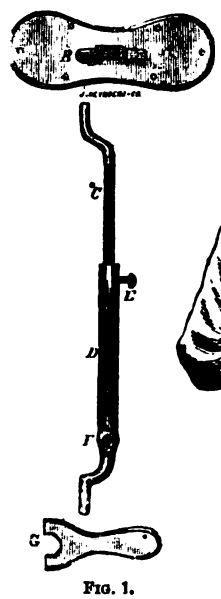



FIG. 1.

FIG. 2.

Into each jacket, while it was being applied, were fastened zinc plates, (See Fig. 1, A) perforated from both sides, so that the little spicula became entangled in the plaster, and were thus rendered practically immovable. In the centre of each zinc plate a strong iron staple was fastened (See Fig. 1, B). Three of these plates were fastened into each jacket: one upon each side of the trunk and the third over the spine at opposite points above and below the seat of the lesion. To the staples in the zinc plates extension bars (G) were fastened, which could be lengthened or shortened by means of a key (See Fig. 1, C and G). It was

the same form of ratchet, key, and lock as used upon knee- and ankle-splints used by Dr. Sayre and others.

With such an apparatus, if *extension* and *fixation* were the indications, he thought they could be constantly maintained. The bars could be extended to twice their length, if necessary, and whenever the jackets yielded, so that fixation was not perfect, a few turns of the key would so elongate them that perfect rest could be insured.

Dr. Wyeth then gave the history of a case which had been treated by means of his apparatus. When first attacked with the disease, the child was three and a half years old. He had been under observation at the Forty-second Street Hospital, where the diagnosis of hip-joint disease was made. He then passed to Dr. C. F. Taylor's Institute, where the diagnosis of Pott's disease of the spine was made and a brace adjusted. He was subsequently referred to a surgeon who took him in charge, using the same apparatus during nine months without improvement. He wore this instrument *nearly* four years, constantly growing worse. He was then removed to Binghamton, where Dr. Burr applied a plaster-of-Paris jacket. It was worn five months, and the boy improved somewhat; but, as it became painful and caused an ulcer over the seat of lesion, it was removed, and the old brace readjusted. He again ran down, lost flesh, etc., and finally came under Dr. Wyeth's observation, in April, 1878. The disease was in the lumbar region, and there was also lateral curvature and partial paralysis of the lower extremities. A solid plaster-of-Paris jacket was applied with the belief that a cure could certainly be effected in that way, and the child was sent home. For the first two or three weeks there was some improvement, but after that the jacket became loose, and it was very evident that it was a failure. It was removed, and a new jacket was applied in the same manner. That one was worn a few weeks, and finally became as unserviceable as did the first.

He then put into use the apparatus exhibited and described above. In three months and a half the apparatus was removed, and the patient was cured. The gradual and continuous extension had overcome the deformity.

The conclusions arrived at by Dr. Wyeth were as follows:

*First.*—That inflammation of the inter-vertebral substance or caries of the vertebra was amenable to the same treatment as was the same lesion occurring in the ankle, hip, or other joints, and that continuous extension, regulated to suit the requirements in each case, in the one as in the other, enforced fixation and rest, and thus met the great indications more fully than other methods.

*Second.*—That Darrach's wheel-crutch, and certain other forms of apparatus, acting upon the same principle—creditable to the inventive genius in a former age—had served their respective careers of usefulness, and had been superseded by better methods.

*Third.*—Among modern instruments, the apparatus originally devised by Dr. C. F. Taylor had justly occupied a prominent position, but since *extension*, *fixation*, and *rest* were the indications in every stage of the disease, it did not enforce those indications as well as did the solid plaster-of-Paris jacket or the double jacket with continuous extension. It pressed upon the seat of lesion, and, by pressing upon a comparatively small portion of the body, it was very liable to set up local irritation at the points where pressure was made.

*Fourth.*—The solid plaster-of-Paris jacket was one of the most creditable innovations of modern surgery for the treatment of caries of the vertebræ, the introduction of which has placed the medical profession and humanity under lasting obligations to Dr. Joseph Bryan and Prof. Lewis A. Sayre. But it was objectionable:

1. Because it required suspension of the patient, which involved more or less of annoyance and pain, and required a complicated apparatus.

2. It did not secure continuous extension.

3. It did not hold the extension obtained by suspension before the application, because it became loose, thus allowing the upper portion of the body to telescope down upon the lower, defeating the object for which it was originally employed.

4. It involved pressure upon the seat of the disease, interfering more or less with the reparative process, and caused unnecessary trouble in the management of whatever ulceration might exist.

Lastly, foreign bodies were liable to lodge beneath the jacket and necessitate its removal and readjustment.

The "Double plaster-of-Paris Jacket, with Extension Bars," heretofore described, he believed obviated those difficulties, since (*a*) it could be applied without suspension; (*b*) it involved pressure alone upon the sound structures, leaving the circulation free and unimpaired at the seat of lesion, where active repair was needed; it allowed ready access to ulcerating surfaces when these existed; (*c*) foreign bodies could be removed without removing the dressing; (*d*) by means of the *extension bars*, the *extension* and *fixation* could be daily regulated with mathematical precision, and could be constantly maintained without changing the dressing, no matter how much the jackets themselves might stretch or the tissues atrophy; and he held that that *continuous extension* not only tended to cure the *disease* more rapidly, but at the same time, while the diseased structures were soft and yielding, it would correct the *deformity* more thoroughly than any other method.

[Dr. Wyeth expressed his obligations to Dr. G. D. Burr for the assistance he had rendered in the management of the case, and credited him with the suggestion of perforating the zinc plates to make them more secure.]

The paper being before the Society for discussion,

Dr. Frank H. Hamilton remarked that it was just one hundred years since Perceval Pott threw the first light upon the pathology of the malady in question, and explained satisfactorily certain peculiarities by which it was characterized.

At that time he reflected the views of surgeons with reference to treatment, and his plan was to place the patient in the recumbent posture and make an issue upon the back. Fortunately no child would submit to the latter without assuming the recumbent posture, and it was a question whether the posture or the issue brought about the results obtained. It had been reserved for English and American surgeons to advance a step beyond the now prevalent practice in Germany and Austria, and to discover that these cases could be treated successfully in the *erect* posture and with the patient walking about. Still holding to the view that fixation and rest were absolutely necessary to a successful issue of the case, American surgeons maintained that these could be secured while the patient was in the erect posture. Our apparatus had been so modified and improved that it permitted locomotion, and at the same time fixation and rest to the parts, thus enabling the patient to derive the benefit which came from physical exercise in the open air. Until now, the principle of extension had not entered into

our methods of treatment, and he was not prepared to accept the proposition of the author of the paper, even in the light of the remarkable case which had been reported. No other experimentation in that direction had been made, and he was therefore driven to resort to theoretical objections merely. The case reported was a remarkable one, and the cure creditable to the surgeon who had it in charge; but Dr. Hamilton was not prepared to accept it as a plan of treatment for caries of the spine. He could not recognize the exact parallel between these cases and cases of joint disease, in which it was usually believed that extension was useful. His objections to the apparatus, as described by Dr. Wyeth, were, first, anatomical. It was impractical, because extension of the spine could not be made and sustained. It was not possible to make permanent extension from the head. The attachment of the head to the atlas and the axis was by ligaments which were unaccustomed to extension; they had not been subjected to that kind of labor, and it was the experience of every man that no considerable amount of extension could be made upon those supports of the head without giving pain. Some of the ligaments had an insertion into the dura mater, and it was not possible for the patient to endure extension of the head sufficient to lift the upper part of the body from the lower part without suffering great pain, and he supposed it would cause death. The only seeming argument in favor of its practicability was found in the experience of orthopedic surgeons who employed apparatus receiving a variety of names, what Dr. Sayre had called a jury-mast, but which he preferred to call a head-rest.

Such apparatus was useful as a head-rest, but not as a means of extension.

He did not believe it was possible to make counter-extension—as opposed to extension from the hips—from the thorax; certainly not from the thorax as a skeleton. The thorax as a skeleton was cone-shaped, with the apex of the cone upward. That fact precluded the possibility of making counter-extension in that direction, unless the chest was expanded to its fullest capacity by a full inspiration and the apparel was applied while the expansion was maintained.

But expiration must follow; and when it occurred, the apparel would lose its hold upon the lower margin of the false and true ribs, and all counter-extension would be removed. When the expiration came, the chest collapsed and telescoped; it must inevitably telescope, and all counter-extension must cease. He thought it was equally impossible to make counter-extension from the lower margin of the ribs upward as it was to make it from the thorax denuded of its soft parts. But the apparel was applied to the thorax covered by the soft parts, which apparently made the upper part of the chest the widest. Now it would seem practical to make counter-extension against the wide part of the thorax, where the resistance would be sufficient to make it effectual. But what caused the increase in the breadth of the chest at its upper part? It was mainly produced by the latissimus dorsi muscles. That could be more especially seen when the arms were raised; the direction of those muscles was changed so that they crossed the axillary space at a lower point, and it would seem that they might afford points of resistance from which counter-extension could be made. But the latissimus dorsi arose from the six lower dorsal vertebræ, the lumbar vertebræ, the sacrum, and the ilium. It arose so low down that if it was to be employed as a point of resistance, the counter-extension was practically made from the same point as the extension was made, namely, from the hips. It certainly was not made from a point above the lesion, even if the lesion was in the middle of the lumbar region or at the junction of the dorsal with the lumbar region. It would not be difficult, also, to show that the pectoral muscles could not be used as points of resistance from which to make counter-extension. Indeed, all experienced surgeons had arrived at positively the same conclusions that the axilla afforded no point of resistance. Now, if all those points were rejected, what was there against which this apparel could mount and find a point of resistance?

Dr. Hamilton also had a pathological objection, which perhaps was not so conclusive as was the anatomical objection to the apparel described by Dr. Wyeth. The basis of the spinal lesion under consideration was inflammation, affecting primarily either the bodies of the vertebræ or their processes, or the articular surfaces, etc. The inflammation might have existed for many months in an obscure form before it was detected by the careful, diligent, and intelligent medical man. If the inflammation had been progressive, it could not exist without producing certain results; in short, there was what was commonly called swelling of the adjacent tissues, which was too painful to be employed as a point of resistance, and therefore offered a certain amount of impediment to continuous extension, were it desirable. He thought that extension was *not* desirable, but that fixation and rest were the most essential elements in the mechanical treatment. All forms of apparel used by American and English surgeons were constructed with the view of obtaining fixation and rest, except occasional loose references had been made to extension. When speaking of extension, however, he had no reference to *erecting* the spine.

All the mechanicians and surgeons had been successful, to a certain degree at least, in relieving the bodies of the vertebræ by throwing the body of the spinal column a little backward, and sustaining it in that position. He believed that straightening the spinal column in that manner had its value, but at the same time he thought it possible that its value had been overestimated as a means of cure.

What was accomplished by various kinds of apparatus was mainly fixation and rest. In other words, they acted as substitutes for muscles, and in that way gave the little patients relief.

The great comfort given to these little patients by Dr. Sayre's plaster-jacket came chiefly from the fact that it was a substitute for the muscles, and, when adjusted, the muscles no longer were made weary by continuous and prolonged action.

Thus far we had gone safely and surely, and as a means for fixation we had apparatus which had a certain amount of security. If Dr. Wyeth proposed to relieve the pressure by absolute extension for any considerable length of time, he did serious mischief to the patient.

Dr. Hamilton also maintained that none of the forms of apparel used had straightened the spine *at the point of lesion*. The spine had been made more erect, the length of the patient perhaps increased by actual measurement, but it came from abolishing abnormal curves in the spinal column rather than from straightening the spine at the seat of the lesion. Reference was then made to a case faithfully and accurately reported in Dr. Sayre's work on Orthopedy, page 383, in which the claim was made that by means of a piece of lead rolled out in the form of a tape, it was demonstrated, with a positive mathematical certainty, that change had taken place in the curve of the spine after extension had been made.

Dr. Hamilton, thought, however, that if Dr. Sayre would carefully look at his own plate, he would at once discover that the angle of curvature at the seat of lesion was not changed, mathematically, a single line, but that the change was almost entirely in the lumbar region.

Dr. Shaffer remarked that he preferred to employ some form of apparatus which was readily under his own control, and his choice was the antero-posterior support of Dr. Davis or Dr. C. F. Taylor. At the time he read his paper before the Society, in June, 1878, [see Medical Record, Aug. 31, 1878] he spoke of a combination method. Since that time he had employed it with satisfactory results. A number of photographs were exhibited. He believed that the change which occurred in the spine in consequence of suspension or extension was not in the pathological curve, but in the compensatory curves. He also believed, although Langenbeck administered an anæsthetic before applying suspension in order to actually reduce the curvature, that it was a dangerous proceeding.

Dr. Gibney gave the record of his observations in 106 cases treated at the Forty-second St. Hospital during the past three years. The observation with reference to the curve had been made by means of the malleable lead while the patient was placed in the prone position and no extension made.

In 92 cases there was no increase whatever in the angle of curvature. In 14 cases there was an increase, varying from one-eighth to one-half inch.

In 68 cases the lesion was in the dorsal region alone, in 11 cases in the lumbar region alone, and in 25 cases in the dorso-lumbar region.

The statistics were reported with the view of proving by facts that there was an apparatus in use which practically met the indications in the treatment of caries of the vertebræ. The apparatus consisted of two steel supports—one fitting around the body under the axillæ, the other fitting closely about the pelvis just above the trochanters—which were joined by four upright bars. Shoulder-straps were used to hold the body in an erect posture; and with the apparatus properly fitted, Dr. Gibney was at a loss to see how any increase of the prominence of the knuckle in the spine could take place. The deformity, however, was not overcome.

Dr. Gibney was not able to understand how permanent extension of the spinal column could be maintained, especially at the seat of the disease; but if the apparatus exhibited by Dr. Wyeth could sustain fixation, it was a valuable device.

Dr. Yale remarked that every one who had had to deal with Pott's disease should receive with favor any apparatus which was able to ameliorate any of the severe symptoms; but he did not feel sure that an advance had been made in that direction by Dr. Wyeth, for the following reasons:

He did not regard the statement that "continuous extension in Pott's disease (in itself a joint affection) is as essential as in the treatment of the diseases of the knee, hip, or other joints," as a sound one. The joints in the vertebral column lacked very many of the elements which entered into the formation of a composite joint. There was less joint than existed at the sacro-iliac junction, or at the symphysis pubis, and yet extension in the proper treatment of disease affecting those articulations was not regarded as necessary. In his opinion, the only reason for resorting to traction or extension was to assist incomplete methods of fixation and prevent attrition of the joint-surfaces, which gave rise to very great suffering. It was a clinical fact that such attrition was not likely to occur in caries of the vertebræ. In the spinal trouble there were no such nocturnal spasms as occurred in connection with hip-joint disease. He regarded it as utterly impossible to make extension of the spinal column, and thought fixation was the chief element in successful treatment of caries of the spine.

Again, he did not regard the statement that "the plaster-of-Paris jacket, as now used, and all other methods fail to meet the indications for the cure of the deformity with the cure of the disease, and often fail to cure the disease," as a valid objection to any plan of treatment.

He had had the good fortune to cure a patient by means of the plaster-of-Paris jacket, and all evidence of kyphosis absolutely disappeared. After six months there were no more symptoms of suffering. Nor could he regard it as a fatal objection to any method of treatment because it sometimes failed to cure the disease. When it was recollected what caries in any part of the body was, and how formidable a disease it became in an ill-conditioned patient, he doubted if any apparatus could be invented which would insure a cure in every instance. A certain percentage of these cases would always prove too great for our surgical skill.

Dr. Post was unable to understand how the comparatively small amount of moisture which escaped from the skin could soften that which, previously applied in a very moist state, had become hard, like plaster-of-Paris.

Dr. Wyeth, in answer to Dr. Post, said he could not state positively that it was absorption of bodily moisture that caused the relaxation of the grip of the plaster jacket, but he could state positively that it did become loose from some cause, and *continuous extension* would remedy this fault.

Dr. Judson referred to an apparatus devised by Dr. Andrews, of Chicago, for the treatment of spinal curvature by extension. The extension was made by adhesive plaster.

Dr. Wyeth remarked, in conclusion, that it was scarcely possible to found a dynasty with one subject, nor could he hope to establish a new principle in surgery upon a single success. Experience alone would determine its efficacy. Should *extension* be impossible or improper, as the distinguished gentlemen who had discussed the paper argued (but which he still believed to be both proper and possible), upon one point all agreed, namely, that *fixation* was essential to success. Accepting that only, he held that the "double jacket," pressing equally upon all of the sound tissues, from which alone fixation should be secured, leaving the diseased structures unmolested, was more capable, by reason of the continuous extension it gave, of sustaining the amount of *fixation* necessary to success than any other method which had been devised.

### METRIC SYSTEM.

Dr. M. D. Mann read a preliminary report of the commission on the metric system.

The Society then adjourned.

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The Prevention of the Adulteration of Wine in France.—A chemical laboratory has been established in the Prefecture of Police in Paris, in which the wine, liquors, beer, and all other drinks brought into the city will be subjected to a chemical examination. This measure was rendered necessary by the increase in the quantity of adulterated articles sold.

## NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, Jan.* 16, 1879.

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

### VALEDICTORY ADDRESS BY DR. PURPLE.

DR. PURPLE proceeded to deliver his valedictory address and to transfer the duties of his office to the President-elect, DR. FORDYCE BARKER. The address was plain, vigorous, and practical, and contained suggestions upon the following topics:

*First*—With regard to the meetings of the Academy. It was evident that the discussion of papers had, in the main, proved unsatisfactory. The plan, therefore, suggested by his predecessor, Dr. Flint, that discussion of papers should be postponed for one week after they were read, Dr. Purple believed would be a step in the right direction. He thought the tendency of such a plan would be to draw to the meetings of the Academy the Fellows who were pursuing special investigation, and would give to the Academy a class of papers which at present were confined to small societies with limited membership and feeble vitality.

*Second*—With regard to Fellowship, initiation fee, and annual dues. Dr. Purple thought the initiation fee far too small, when the benefits given to the Fellows were fully considered. He recommended that it be raised to twenty dollars. He also recommended that provision be made for compounding the annual dues. Reference was also made to the changes which death had produced in the Fellowship, and the names of the deceased Fellows were read.

*Third*—With regard to the library, its growth, and its usefulness. Within the past two years it had been thrown open for free use by the profession and the public. No public library in this country, with limited money resources, had grown like that of the New York Academy of Medicine. He recommended that a circulating department be at once established.

*Fourth*—With regard to the necessity of a closer union in the community of Fellowship and the resources of the medical profession.

Passing from these points Dr. Purple referred to the necessity of taking active measures for the liquidation of the mortgage upon the property of the Academy, and also the great need of more extended accommodations for the library and the general meetings of the profession.

With regard to the second measure, he was authorized to say that a pledge of $5,000 had been given by a private citizen, providing the remaining $2,000 of the estimated amount necessary to complete the proposed enlargement of the building was raised by the Academy.

Thanking the Fellows for the uniform courtesy which had been extended to him during the two terms in which he had served as their presiding officer, Dr. Purple introduced as President of the New York Academy of Medicine, Dr. Fordyce Barker.

### INAUGURAL ADDRESS BY DR. BARKER.

DR. BARKER then delivered his inaugural address, of which the following is a brief abstract:

After thanking the Fellows for the great honor which they had conferred upon him, he remarked that it was thirty-two years since all the best men of our profession in this city, as he had been informed, united in organizing the New York Academy of Medicine. The necessity for such an organization was apparent, and good men and true co-operated to accomplish the result. The aim was not the mere culture of a special department, but was broad in its scope, taking in the whole domain of our professional work.

Inquiry was then made as to how far it had been successful in accomplishing its mission, as to what it had done for its members, what it had added to literature and science, and what influence it had exerted on the profession and the public.

Dr. Barker here made brief reference to the ethical relations of the members of the profession to society, its standing in public estimation, its work either in the direction of medical societies or in the way of contributions to literature and science *since* the organization of the Academy, and which he believed were in a great measure due to the influence of the Academy.

Thirty-two years ago there was no public medical society in this city whose proceedings were reported, or which added to the common stock of the scientific literature of the profession. The Medical Society of the County of New York was dragging on a bare organic existence, but did no scientific work, and had but slight influence on the ethical condition of the profession.

The Pathological Society was but just commencing its useful career; long might it continue its noble work as an efficient contributor of positive knowledge, and as the teacher of young and old in a most important branch of our science.

Within the last thirty-two years the Medical Society of the County of New York had become an important, useful, and active working body, and had brought out many valuable and scientific papers which had been well and ably discussed before large professional audiences. In addition to its scientific work it had, by the laws of the State, important ethical duties in protecting the community from dangerous and irrepressible pretenders as medical practitioners, and also in preserving the professional morals of all regular and authorized practitioners. Some had had the opportunity of learning, during the past year, how faithfully it attended to its duties, and how sharply it looked for any errors in conduct whether committed wilfully or through thoughtless inadvertence. As most, if not all, the Fellows were members of that Society, the Academy, as a body, could but feel a great interest in its work and regard it as well worthy of confidence and support, and it must be deemed a misfortune to the profession and to science if it was not kept up to its present high standard of excellence. He who would attempt to elevate the one by depreciating the other was a common enemy alike to the Academy, to the County Medical Society, and to the profession of the city.

There were many other societies which were devoted to the cultivation of special departments of medicine, and which were accomplishing much in their spheres by inciting men to work. The assertion, however, was ventured for the candid consideration of all honest and disinterested minds, whether much of that work might not be done much more profitably and effectually in the appropriate sections of the Academy, and in that way the aggregated results would be brought out more prominently for the benefit of the whole profession.

The scientific work which the Academy had done was much more than generally supposed. The aggregate of the printed matter was over *five thousand* octavo pages. Some of the papers which had been read before the Academy must still rank as the best upon the subject. The discussions had been able, and many of them possessed remarkable merit.

Special mention was made of the discussion upon puerperal fever, the inciting cause of one upon the

same subject in the Academy of Medicine of Paris, which was continued more than a year.

Where could be found in the medical literature in any language a more thorough, able, and exhaustive discussion of albuminuria in all its bearings and relations than appeared in the publications of the New York Academy of Medicine?

Dr. Barker then passed to the consideration of the powerful influence which the Academy had exerted upon the profession outside of its scientific work, its papers and its discussions. "Again, as men talk one with another, new modes are discovered of looking at old things, prejudices fade away, and identity of fact and of meaning are found to underlie differences in words, and by comparing their observations and their conclusions with those of others, they correct the former and rectify the latter."

Few, perhaps, had noticed how many works had been published by Fellows of the Academy, and mention was made of those which came to memory: Treatise upon Physiology, by two of the members; the most advanced, original, and complete which have ever appeared in the English language; a large work on The Practice of Medicine; numerous special works, as: On Fevers; On Diseases of the Lungs; On Physical Diagnosis; On Diseases of the Nervous System; On Diseases of Women; On Diseases of Children; On Materia Medica and Therapeutics; On Ovarian Tumors; On Midwifery; On the Puerperal Diseases; works on General Surgery, by two of the members; On Military Surgery; On Uterine Surgery; On Fractures and Dislocations; On Diseases of the Genito-Urinary Organs; On Stricture; On the Venereal Diseases; On Diseases of the Bones; On Diseases of the Ear; On Orthopedy: On Pott's Disease; On Dermatology; On the Medical and Surgical Uses of Electricity, etc., etc.

Dr. Barker believed the assertion was true that the physician whose library consisted exclusively of all the works by Fellows of the Academy, had a better and more useful working library than belonged to a large majority of the profession in this country thirty-two years ago.

But it should be the aim of the Academy to aid the profession in acquiring a higher culture and such superior erudition as could only be attained by access to the literature of the past. For that purpose an earnest effort had been made to gather a library which, at the present time, contained more than 9,000 volumes. In one respect it surpassed all others—namely, that it had the most complete set of all the medical journals which had been published in this country. The remarkable success in gathering the library had been very largely due to the persistent energy of the outgoing President. At the least estimate, $10,000 could not have bought the volumes which he had given to the library.

It was a matter of congratulation that the financial condition of the Academy was so excellent, and that its receipts were considerably in excess of its expenditures.

Dr. Barker then passed to the consideration of the work of the stated meetings.

Most of the organic work of the Academy was done by committees and the Council. Hence no cheap notoriety could now be gained by frivolous speeches on such matters by those who, from incompetence or from a just self-appreciation, fortunately never took part in the scientific discussions. Good papers and good discussions were sure to call out full meetings.

It was to be regretted that some of the prominent men in the profession who formerly attended the meetings of the Academy, read papers, and took part in the discussions, were now seldom seen there. It might be that the flight of time had worn out the professional ardor of their youth, or blunted the sense of duty to the profession, and that they had arrived at that happy consummation when they had no more to learn, with no desire to add to their knowledge or correct the errors of others. They had probably settled down in a placid contentment, with abundant means, a good practice, and a conceded position. But if the good hearts and sound principles of such could be aroused to action, they would cheer and encourage by their presence, and if they took no part in the work they would still be useful members by being ornamental.

Delicate allusion was made to another fact. A *very* few, he was happy to say, of the conspicuous members had deserted the standard, and had resigned the Fellowship of the Academy. Such action, he believed, resulted either from misconception or misinformation, or bad logic or bad judgment. He would not say that the Academy could better afford to do without them than they could afford to keep aloof from the Academy, but he would say that it was to be hoped that some of them would in the future retrace their steps. He thought he could venture to say for such, "still the lamp holds out to burn," [he would not complete the couplet] and that they would be warmly welcomed back, as they would doubtless bring forth fruit meet for repentance by good scientific work, and by liberal contributions to the library and to the treasury.

Those who warmly sympathized with the aims of the Academy, and who would zealously co-operate in its good work, were welcomed. "From malcontents, croakers, and pessimists, good Lord deliver us."

With reference to papers it was to be hoped that those best qualified by special study and experience to discuss them would make due preparation, in carefully maturing their ideas, and thus secure a facility in clear and lucid expression. The Academy wanted no crude, ill-considered statement of fact, no frivolous effervescence of the moment. It would humanely spare all from making a pitiable, even though it was a ludicrous exhibition of folly and ignorance. The meetings of the Academy could not become the arena for the display of garrulous imbecility, pretentious assumption, or, to borrow a phrase from Dr. O. W. Holmes, "the flippant loquacity of half-knowledge."

Reference was then made to the volume of Transactions and the possibility of making it pay the expense of its publication.

The zealous co-workers, the Medical Journal Association of the City of New York, were some years in advance of the Academy in a successful effort to furnish for their members access to all the current medical literature in the department of medical journals and monographs. Their effort was one worthy of all commendation, and its usefulness to themselves could not be too highly estimated.

Dr. Barker believed he expressed the hope and the wish of the Academy, that its walls might be soon extended, so that it might, at no distant day, give house-room for all accumulations of that character "without money and without price;" that the Hall of the Academy should always be open to the profession from all parts of the State and the country, in which they would be hospitably welcomed, and in which they would be sure to find every medical work, every medical journal in all languages, every essay, and every paper known in medical literature. Might he not feel assured that all the Fellows of the Acade-

my would heartily co-operate with him in every effort to bring about that result as speedily as possible.

After the address $800 were secured by voluntary subscription towards the two thousand dollars desired for building purposes.

The President announced that Dr. T. Gaillard Thomas would read a paper at the next Stated Meeting.

The Academy then adjourned.

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*Special Meeting, January* 30, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

## A NEW METHOD OF REMOVING SUBMUCOUS AND INTERSTITIAL FIBROIDS OF THE UTERUS.

DR. T. GAILLARD THOMAS read an interesting paper upon the above subject. It was limited to the consideration of surgical procedures most applicable to the removal of interstitial and submucous fibroids.

The key-note to the modern advance in this subject was struck by Dr. W. S. Atlee, who, in 1853, presented an essay to the American Medical Association "On the surgical treatment of certain fibroids heretofore considered beyond the resources of our art." Both in Europe and in this country the lead of that bold surgeon had been followed, and his method had come to be recognized as legitimate surgical resources.

Dr. Atlee's views could be embraced under three propositions:

1. If a non-pediculated tumor could not, from the nature of its attachment and envelopes, be expelled or drawn by mechanical means through a dilated os uteri, it was advisable to make by the knife a means of escape for it into the uterine cavity, through its capsule or enveloping tissues.

2. If the tumor thus offered an outlet could not be removed, it should be forced into and out of the uterine cavity by the persistent use of ergot and cutting the cervix.

3. The tumor, once coming within reach, it should as soon as practicable be enucleated and removed by the surgeon.

That that method of treating such cases was attended by the great dangers of septicæmia, peritonitis, hemorrhage and exhaustion, was not to be denied. But a policy of watching, waiting, and inactivity was by no means always a safe one.

Interference, however, should not be practised unless impending danger urged a resort to it.

Removal of these tumors by strangulation was a method which at the present time every cautious surgeon was averse to.

The plans now usually adopted could be summarized as follows:

Excision, torsion, avulsion, ecrasement, enucleation, and the production of sloughing. To all those, serious objections attached. Aside from certain difficulties attending its performance, *excision* was often impracticable. Torsion could be applied only to pediculated tumors. *Avulsion* and *enucleation* were difficult of accomplishment and slow of performance, and the patient was in danger of sinking in consequence of exhaustion. *Ecrasement* frequently failed to remove the entire growth, and left the uterine attachment to decompose and cause septicæmia. Removal by the process of *sloughing* insured so certainly septicæmia that it should be regarded as unwarrantable.

One of the great objections to the use of *ergot* was its tendency to impair nutrition, and produce death and consequent decomposition of the neoplasm. The object of the paper was to offer a plan which experience had led him to regard as superior to any yet adopted, and which he believed would supersede them with all who were willing to give it a trial.

The method consisted in seizing the most dependent and accessible part of the tumor with a strong vulsellum forceps, passing along its sides the *serrated scoop, or spoon-saw*, and by a gentle pendulum motion from side to side, sawing through the attachments of the tumor and forcing it entirely from its connection with the uterus.

The advantages claimed for the instrument were the following:

1. The attachments were separated by a saw which greatly limited hemorrhage.

2. The shape of the spoon, convex without and concave within, caused it to follow of itself the contour of the tumor, and at the same time protect the uterine tissue.

3. The highest attachment could be as readily reached as the lowest.

4. The saw action secured separation with rapidity and with certainty.

5. The spoon-saw secured separation of the growth at its highest point of attachment, and left no pedunicle to decompose.

To illustrate the advantages which the new method possessed over the old methods, a number of cases were first reported, and then followed by the report of a number of similar cases operated upon by the method just described.

CASE I.—Large fibroid expelled through an opening made in its capsule. An artificial os was made, and the tumor left to be delivered by uterine expulsion. Decomposition occurred; the process of delivery was tedious, but the patient finally recovered.

CASE II.—Ergot treatment. Presenting part of the tumor became offensive and gangrenous. The patient suffered markedly from exhaustion and septicæmia. A portion of the tumor was subsequently removed by the écraseur, a part by enucleation, but it was only with the greatest difficulty that the uterus was emptied. The tumor was about the size of a cocoanut.

Dr. Thomas was confident that, by means of the spoon-saw, he would have been able to accomplish in ten minutes what required an hour by the method employed.

CASE III.—Submucous fibroid enucleated during the process of septic fever. Recovery.

CASE IV.—Small tumor; weight, four ounces; shock great; hemorrhage trifling; enucleation; operation for its removal occupied one hour. He was confident that with the spoon-saw the operation could have been performed in eight or ten minutes, and that the shock would have been much less.

Cases to the number of seven were reported. In the last three the growth was not entirely removed by the operation; but Dr. Thomas's firm conviction was that, if he had to deal with these cases now, he would be able to completely remove the tumor in each case.

The cases reported were not selected because they illustrated difficulties, but they were really only average cases in that respect.

Six cases were then reported in which the tumors were removed by means of the spoon-saw.

### METHOD OF DETERMINING THE EXTENT OF THE ATTACHMENT OF THE TUMOR.

Before relating their histories, a description was given of a new instrument, and a new method of determining the extent and situation of the attachment which the tumor had to the uterine wall. After try-

*ing* various methods, he had fixed upon the use of the *flat whalebone sound.*

In order to ascertain the outline of the tumor and the extent of its attachment, the index finger of the left hand was placed against its most accessible part, then the sound was passed up along the side of the tumor until it became arrested. The sound being then withdrawn and the finger kept upon it, it was laid upon a sheet of paper, and being curved, a line was drawn from its tip to the indicating finger. The same was done upon the opposite side of the tumor, and in that way an approximate and wonderfully exact idea could be obtained with reference to the situation and extent of the attachment.

Case I. The attachment occupied one entire side of the uterus to within an inch of the internal os. The patient was etherized, placed in Sims's position, and his speculum was introduced. The spoon-saw was used and the attachment separated in a few minutes. By other methods certainly half an hour would have been required to perform the operation. The tumor weighed seven ounces and a half. The patient made a good recovery.

Case II. was one in which he assisted Dr. A. C. Post at the Presbyterian Hospital. The tumor weighed seventeen ounces, was attached about three-eighths of its circumference, and the separation was completed in forty minutes. The patient made a good recovery.

Case V. was one in which Dr. Thomas thought the separation of the attachment could not have been made with any other instrument without opening the peritoneum. The tumor weighed eight ounces, was interstitial, and well-nigh filled the pelvic cavity.

Case VI. was one in which the tumor could have been removed easily by some of the ordinary methods, but by the method employed its removal was made much easier.

Dr. Thomas was so sanguine and thoroughly convinced by his experience, that he unhesitatingly recommended that the use of the spoon-saw should supersede all other methods in the removal of submucous and interstitial uterine fibroids. He would say that, in any case in which the vulsellum forceps could be fixed in a fibrous tumor of a size sufficiently small to admit of its delivery by the vagina, detachment of it from the uterus could always be accomplished by this method. The accident of cutting into the peritoneum was less likely to occur than when enucleation was employed.

### DELIVERY OF LARGE TUMORS FROM THE VAGINA, AFTER THEIR EXPULSION FROM THE UTERUS.

Any tumor which could be completely accommodated in the pelvis could be delivered without diminution in bulk; but sometimes a projecting part of the tumor might fill the pelvis completely, and still a larger portion might remain above the superior strait, which could not be drawn through without mutilation. Under such circumstances, he recommended the following methods of delivery:

1. Seize the tumor with strong forceps, draw it down, sever the distended perineum to the sphincter ani, partially or completely invert the uterus, detach the tumor by the spoon-saw, replace the uterus at once, and close the perineum by sutures.

2. Successive sections of the tumor might be cut away by means of the galvano-cautery wire.

3. A large trocar and canula, or the actual cautery, or the trephine obstetric perforator, might be used to channel up the middle of the tumor, and then, with a strong pair of scissors or osteotome, pieces could be cut out, and the tumor so diminished in size that it was susceptible of delivery.

That either of those ways was better than enucleation or the production of sloughing, he had not the slightest doubt, from his own observation and experience.

The paper being before the Academy for discussion,

Dr. A. C. Post remarked that in the case referred to by Dr. Thomas, in which the operation was performed at the Presbyterian Hospital, he found much advantage to arise from passing a strong ligature through the projecting part of the tumor, thus giving him a more powerful means for making traction than by the use of the vulsellum forceps alone.

He believed it would have been impossible to detach the upper part of the tumor without the use of the serrated spoon. The instrument worked smoothly and pleasantly, and when the tumor was entirely detached an effort was made to extract it through the cervix uteri, but he was not able to withdraw it in that manner. He then made a series of radiating incisions in the tumor, and it was removed without further difficulty. For a number of days the uterus remained exceedingly soft, like a piece of wet buckskin. There was considerable hemorrhage at first, but it was easily controlled. There was no bleeding subsequently, and at the end of two months the patient's health seemed perfectly restored.

Dr. T. Addis Emmet remarked that he had had no personal experience in the use of the instrument especially recommended, but he was pleased with the report made by Dr. Thomas, for he knew of no other means of operating by which such good results could be obtained. He was satisfied, from the shape of the instrument, that it was far superior to the écraseur, which he had not used in any case of the kind for many years. Without the report of the cases by Dr. Thomas he should have raised an objection to the use of the instrument—the same objection which he had against enucleation, and that was the danger of blood-poisoning from leaving so large a cavity with a surface favorable for absorption. But there were many cases in which that risk must be taken. The tumor might be so large that the uterine wall had not sufficient strength to drive it into the vagina, and an operation became necessary, and operative procedure also became necessary for the removal of very small tumors.

Some ten or eleven years ago he employed an instrument something like the one presented by Dr. Thomas. It consisted of an iron finger-nail, as it were, a shell which was slipped over the finger, and he found it to work very satisfactorily in sawing out the tumor. The only objection to it was the fact that the finger soon became tired, and for that reason its use was abandoned.

About the year 1865 he operated for the removal of a fibroid which was attached to the fundus of the uterus. The tumor was drawn down, the écraseur applied, and he was quite certain that it was removed close to the junction. The patient, soon after the operation, began to show symptoms of blood-poisoning, and finally died. At post-mortem he obtained a lesson which he had ever since remembered. It was found that a large portion of the tumor had been left in the uterine wall, and the explanation was that the traction had pedunculated the tumor, so that when removed by the chain the cut was made at some distance from the uterine junction. Since that time he had followed the rule, as far as possible, to wait until the tumor had been driven into the vagina. As soon as the tumor reached the vagina we had a guaranty

that there was sufficient uterine tissue to drive it down, and then it could be removed piece by piece without injury to the uterine cavity. An attempt to deliver by traction might be made, thus bringing on labor-pains and imitating Nature.

But there were cases in which such a plan of treatment could not be adopted, and there was no other resort except the plan recommended by Dr. Thomas. Certainly the old plan of enucleation had been attended with the greatest danger in cases of large tumors. He believed, therefore, that the plan given by Dr. Thomas was a valuable one for the removal of *large* tumors and *very small* tumors.

With reference to the removal of large tumors which had been driven into the vagina, he did not recommend dividing the perineum or entering the uterine canal at all. The fact that the tumor was in the vagina was evidence that there was sufficient uterine tissue to drive it out, and as soon as it was cut loose it could be readily removed and the result was always good. The only time we were obliged to enter the uterus was when the pedicle was divided, and the pedicle was always attached at the lower portion of the uterine wall. He had in that manner removed several tumors weighing between seven and ten pounds, and the operation was attended by less risk than when the uterine cavity was invaded.

He should employ the instrument devised by Dr. Thomas, anticipating good results from its use.

Dr. A. J. C. Skene, an invited guest, remarked that he had operated once in the manner recommended, and in a case which he thought tested the capacity of the instrument fully as much as did any of the cases reported by Dr. Thomas. It was an interstitial fibroid occupying the anterior wall of the uterus. Eight years ago the tumor projected far enough down to press upon and distend the perineum. Considerable blood had been lost. He resolved to remove as much of the tumor as possible, and the operation was performed by means of the galvano-cautery. The operation controlled the hemorrhage for a time, but the tumor returned. The patient passed from under his observation, and he supposed that she was dead. This winter she reappeared, and he found her in such an exceedingly anæmic condition that he despaired of saving her life. The tumor projected so far down that he was unable to reach the os uteri. He was unable to control the hemorrhage by ergot; he could not use the tampon. All other means failed, and operative procedure afforded the only chance for saving the patient's life. He feared that his patient would die before the operation could be completed. To avoid hemorrhage as much as possible, the capsule of the tumor was divided by the thermo-cautery. He then used the serrated spoon, and being unaccustomed to its use, half an hour was consumed in the operation. The tumor was easily removed, notwithstanding the cicatricial tissue resulting from the former operation; there was no hemorrhage, and the patient made a good recovery. After removal of the tumor, the finger was introduced and the fact ascertained that he had passed closer to the peritoneum than he wished to go again. The cicatricial tissue and the anæmic condition of the patient submitted the operation to a severe test, yet the result was eminently satisfactory.

Dr. Bozeman thought that by the use of the instrument presented by Dr. Thomas a more effectual removal of the tumor could be made than by means of the process of enucleation or any other method. In that respect great advantage doubtless would follow its use, because of the avoidance of the liability to blood-poisoning.

Dr. Lawrence Johnson referred to the satisfactory result obtained in the case which Dr. Thomas saw with him, and had included among those which he had reported.

Dr. H. T. Hanks asked Dr. Thomas if he would perform the operation in a case in which the pelvic cavity was filled with a uterine fibroid and a fœtus existed above it at full term of utero-gestation.

The President said that he wished to call forth from the author of the paper remarks which seemed necessary with reference to certain points, in order to make the discussion as complete and valuable as it should be to the profession at large. Such operations, performed by experts, might be perfectly safe; while, in the hands of our compeers who failed either from lack of the same knowledge, or from the lack of manual dexterity, or from the lack of prudence and caution, they might result as disastrously as from erroneous judgment with reference to the propriety or the mode of performance.

It was well known that a certain class of uterine fibroid tumors disappeared either spontaneously or under the influence of medical treatment. It had fallen to his lot in several instances to see fibroid tumors of the uterus of very large size disappear.

In one case, which was also seen by the author of the paper, the tumor was extremely large, the abdominal and the pelvic cavities were filled by the growth, the woman became pregnant and went to the full term of utero-gestation twice, severe hemorrhage occurred repeatedly, and yet the tumor had entirely disappeared, and the woman had been restored to good health.

He also referred to a case which came under his observation in Brooklyn twenty-five years ago. In that instance the patient nearly lost her life several times from hemorrhage produced by the uterine fibroid, but the tumor finally disappeared, apparently spontaneously, and the woman was restored to health.

We were aware, also, that a certain degree of success had been attained in the treatment of uterine fibroids by the use of ergot, hypodermically or otherwise. He made the remarks with the special view of calling out a statement with reference to the indications for the operation recommended.

Dr. Thomas, in closing the discussion, first referred to a case which gave answer to the question asked by Dr. Hanks. He was called in consultation to see a case in which a uterine fibroid was so attached that it gave space for the development of a fœtus, and yet was so large as to almost completely fill the pelvis. Every legitimate effort was made to effect delivery of the child by the natural passages, but it was found impossible. The head was almost entirely above reach. It was regarded as almost absolutely certain that craniotomy would result in the death of the mother as well as the child, and resort was made to Cesarean section.

Under such circumstances he would *now* proceed at once to remove the tumor by the method described, and then deliver the child. At the time he saw the case he did not know of the method, and there was no possibility of its removal by any of the old methods.

Dr. Barker had made allusion to the fact that fibroid tumors of the uterus sometimes disappeared either with or without treatment, and had asked that he should give his opinion with reference to the indication for the performance of the operation.

In answer, he referred to a statement made at the commencement of his paper, namely, that interference should not be practised in these cases unless impending danger urged resort to it.

It was his custom to state to medical students that the man who performed any operation for its removal simply because of the existence of a uterine fibroid, was absolutely culpable. In no case should interference be made unless impending danger required it.

For example, in such cases as those operated upon by Dr. Post and Dr. Skene, in which there was no probability or possibility of arresting the hemorrhage by the use of ergot or other means, he believed that we were called upon to interfere by operative procedure.

In the case which he saw with Dr. Barker, he thought the doctor would recollect that the tumor disappeared at the time of the menopause.

If the patient could be kept along until the menopause arrived, there was a prospect that the tumor would disappear. But suppose that the menopause was ten or fifteen years distant, the patient became anæmic from hemorrhages, the feet became swollen, etc.: a continuation of that condition certainly would end in death, and operative interference afforded the only chance for saving the patient's life.

In certain forms of pedunculated tumors almost any form of operation would answer an excellent purpose.

He would restrict the use of the spoon to such cases as those in which the attachment of the tumor was so great that it would not in all probability be naturally delivered—cases in which separation of the tumor and nothing else would accomplish that result. In such cases he recommended the operation and brought it forward as one to supersede all others, because it was readily performed and was a safe method of removing such tumors.

The Academy then adjourned.

# Correspondence.

## COOL ACIDULATED WATER IN CYSTITIS.

To the Editor of the Medical Record.

Dear Sir:—By your kind indulgence I will occupy a corner in your valuable journal, by way of explanation:

In a previous number (January 11th) of the Record, Dr. C. H. von Tagen, of Chicago, Ill., criticises my letter published in the same journal for December 28, 1878, in (1) that I did not state the quantity of cider-vinegar used to the four ounces of water, and (2) asks the question "where" (I) "he obtained 'cold spring or branch water' at a temperature of 70° or 80° F? (was the water first warmed?)"

(1.) Cider or apple-vinegar is not officinal, and as manufactured and used at the different houses in the country is of very variable strength, as fermentation was or was not complete. Some specimens have not half the strength of others; one may be too weak, the other too strong, without dilution, for pickling purposes. Of the former, one part to one of water; of the latter, one part to three or four of water, would not be too strong.

(2.) As there is no mark on the thermometric scale above which is cool and below "cold," the term "cold" was used relatively—*i.e.*, in the sense that anything coming in contact with the healthy body and producing the sensation of cold, is "cold," though I believe to temperatures above 60° or 70° F., and not warm nor hot, the term "cooler" is applied, and is, in my humble opinion, a very indefinite term—cold, cool, warm and hot respectively running into each other by insensible gradations.

In preparing the injection in the last case (for I did not prepare that in the first) the temperature of the fluid, either before or after the vinegar was added, was not taken, consequently I could not know exactly how cold or cool (if preferred) it was, or I would not have used the term "about" in both cases before the figures indicating the degree of temperature. I knew the water at the spring, from which the first case was treated, to be *warmer?* (not so cold) than is usual for spring water, and estimated the temperature at about 60° or 65° F. If the water from the spring, before it was used, remained any considerable time in the house, at a temperature that prevails at that season (July), it would approach the temperature of the circumambient atmosphere, and the addition of the vinegar, which had stood for days in the house, would still further raise the temperature to probably 75° or 80° F. In the second case I *estimated* the water, used in the injection, at the spring at 58° F., which, by testing, I find to be the average temperature of the springs of the county. The water was fresh from the spring, and quite cold, but the vinegar was very weak, so I had to use as much of the latter—which was much warmer than the water, from long standing about the house—as of the former. The fluid thus compounded, I supposed, could not go above 70° F., so it was put at that figure. In making these estimates it was my intention rather to go above than below the actual temperature, fearing that I might understate it. In the first case treated the temperature of the fluid injected may have been as low or lower than 70° F.; it was certainly not above 80° F. I am confident the fluid injected in the second case was not above 70° F., and it may have been as low as 60° F. It was my intention, in this case, to use the water *as cold as I could get it* (ice not being obtainable), if, when compounded, the solution had been as low as 53° F., the temperature of the water at the spring.

With regard to the query in the last clause of Dr. von T.'s letter, if he will refer back to the first case treated he will find that I directed the cider-vinegar then because the urine was *ammoniacal.*

Respectfully.

W. H. Bramblett, M.D.

Newborn, Va., January 20, 1879.

## DR. MARION SIMS AND HIS OPERATIONS IN VIENNA.

To the Editor of The Medical Record.

Sir:—When I read the article by my friend Prof. Fordyce Barker (with the above caption), in the Record of the 9th November last, I thought I would say nothing more on the subject.

But I changed my mind when, a few days ago, I received the December No. of the *Richmond and Louisville Medical Journal*, in which occurs the following paragraph: "A correspondent of the *Chicago Medical Journal* states that all the patients Dr. J. Marion Sims operated on while in Vienna died within ten days of peritonitis."

I went to Vienna for a special purpose, to remain a month or six weeks, but at the end of a fortnight I was telegraphed to go to London, and was obliged to leave before the object of my visit was accomplished.

While in Vienna I operated on three cases of epi-

thelioma of the cervix uteri; one for Prof. Spaeth, one for Prof. Boehm, and one for Prof. Salzer.

The first was an utterly hopeless case, which, nevertheless, progressed very well for five or six days, when she died of a sudden hemorrhage, the result of a slough between the uterine and peritoneal cavities. The second (Prof. Boehm's, in the Rudolph Hospital) was a very favorable case for operation. The amount of tissue removed was not larger than an English walnut. I fully expected her to get well, but she died of peritonitis in thirty-six hours.

The third (Prof. Salzer's) was a very unfavorable case. The epitheliomatous growth extended far up into the body of the uterus, destroyed the posterior portion of the cervix, and invaded the posterior wall of the vagina, extending down on it for two inches or more. When the vegetations were removed from the vagina the cervix was drawn forward with a tenaculum, and this movement tore the cervix loose from the posterior wall of the vagina, making an opening into the peritoneal cavity large enough to admit an egg. Blood passed freely into the peritoneal cavity; it was sponged out; the ruptured parts were brought together with four interrupted sutures. The operation was completed in the usual way, and the patient recovered without the least drawback.

This is a succinct account of the cancer cases. The first two ought to have recovered, but died. The last one ought to have died, but recovered.

My friends were anxious to see my method of operating, and of course I was obliged to operate on such cases as were presented to me. The only case favorable for successful operation was Prof. Boehm's, the one that died of peritonitis.

I performed but one operation for vesico-vaginal fistula in Vienna, and that was for Prof. Boehm, at the Rudolph Hospital. It was a very bad case, involving the cervix uteri with narrowing of the vagina from dense cicatricial tissue following extensive sloughing. The vagina was so contracted by fibrous bands that the index finger could not be passed through the contracted part to the cervix uteri. I divided the cicatricial bands, and introduced a vaginal dilator, and the next day I operated on the fistula, introducing seven or eight interrupted silver sutures, and the case was cured in a week.

The only other operation I performed in Vienna was amputation of the cervix uteri in a case of procidentia, for Dr. Rokitansky, at the Marie Thérèse Hospital, covering over the stump with vaginal tissue secured with silver sutures.

In all these operations there was but little room for comparing methods between different operators. Dr. Bozeman never operated for cancer in Vienna. He operated only for vesico-vaginal fistula, an operation perfectly devoid of all danger; for, of the hundreds of operations of this sort performed by Dr. Emmet and myself at the Woman's Hospital and in private practice, I think there has never been a death. Therefore there can be no comparison instituted between these simple operations and those serious ones for cancer of the cervix uteri.

The only comparison I heard made in Vienna between my single operation for vesico-vaginal fistula, and Dr. B.'s numerous ones was this: that I took only hours instead of weeks to prepare a contracted vagina for operation; and that I took only thirty minutes to operate on a difficult case of vesico-vaginal fistula instead of three hours; and that the position of the patient for operation and the whole method of operating were in accordance with correct surgical principles, and void of pretension and mysticism.

Thanking my friend Prof. Fordyce Barker for his manly defence of me in my absence, and thanking you for the space you have kindly allowed me, I remain

Yours truly,

J. MARION SIMS.

12 PLACE VENDÔME, PARIS, Jan. 15, 1879.

# Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.— Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending February 1, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| Jan. 25, 1879. | 0 | 4 | 216 | 1 | 2 | 54 | 0 | 0 |
| Feb. 1, 1879. | 0 | 9 | 195 | 2 | 4 | 69 | 0 | 0 |

THE ILLINOIS STATE BOARD OF HEALTH.—The State Board of Health has removed its central office from Chicago to Springfield, and Dr. Horace Wardner, of Cairo, has taken the place of Dr. Rauch as president.

NEW YORK ACADEMY OF MEDICINE.—At a Stated Meeting of the New York Academy of Medicine, held Jan. 16, 1879, the following preamble and resolutions were presented by Dr. Hubbard, in behalf of Dr. J. G. Adams, and unanimously adopted by the Academy, and ordered to be published in the N. Y. MEDICAL RECORD:

*Whereas*, Samuel S. Purple, M.D., to-night retires from the presidential chair of this Academy, which he has filled for four years with so much dignity and advantage; therefore,

*Resolved*, That the Fellows of this Academy have great pleasure in testifying to the great success of the administration of Dr. Purple, no less than to the dignified manner in which he has presided and watched over its interests. Under his auspices the Academy has attained to its present high position as a scientific body. More especially in the department of its library and reading-room, to which he has personally contributed so largely, and which have grown up under his fostering care, the Academy have reason to thank him for his distinguished and self-denying service.

*Resolved*, That the thanks of this Academy are hereby tendered to Dr. Purple, with the wish and hope that we may be still further aided by his efforts in this direction, in which he has shown himself so wise and faithful a counsellor.

*Resolved*, That these resolutions be published in the MEDICAL RECORD.

[Signed] FORDYCE BARKER, *President.*
H. T. HANKS, *Secretary.*

PROF. VON LANGENBECK, of Berlin, recently celebrated his 68th birthday, and is still vigorous.

PROFESSOR HITZIG is soon to become a member of the faculty at Halle, and enter upon his duties as director of the lunatic asylum in that city.

JACOB MOLESCHOTT has been elected professor in the University of Rome, Italy.

PILOCARPINE IN HICCOUGH.—Dr. Ortille was successful with gmm. 0.025 muriate of pilocarpine in curing hiccough which had resisted every remedy.

The patient was 62 years old, and was suffering from symptoms of cerebral thrombosis. The singultus continued even while the patient was under the influence of morphia.

TREATMENT OF CRACKED NIPPLES.—Dr. Haussmann has found that lint, soaked in a two per cent. solution of carbolic acid, applied to the nipples, and wetted every two or three hours with the same, gives immediate relief to the pain, and causes complete healing (although the baby is still nursed from the nipples) in two to three days.

ASTIGMATISM.—A simple test therefor may be made by ruling an equal number of lines, of equal distances and equal thickness, vertically and horizontally, side by side. These lines should be looked at, the apparently more distinct fixed upon, and then the sheet should be turned 90°. The vertical lines will become horizontal, and it is a check against any inaccuracy in ruling if, with the changed position, the same result with regard to the then vertical and horizontal lines is noticed. This is recommended by M. Javal, the eminent physiologist.

RUSSIAN MEDICAL STUDENTS.—"Not only within the colleges and universities are they subjected to the arbitrary rules of this police system, of which all administration in Russia partakes, but outside in their private life they are kept under the strictest surveillance. Being almost all very poor, they herd together in miserable quarters, or occupy small chambers, destitute of every comfort, in the lowest parts of the city. In this state they are liable at all hours of the day and night to be broken in upon by the police, and to have their things turned upside down in the search for forbidden publications, or to be arrested without a moment's warning on suspicion."—*Correspondent in London Times*, January 1, 1879.

M. PAUL BERT, newly elected president of the *Société de Biologie* (Paris), in taking his seat pronounced a fine panegyric of M. Claude Bernard, his predecessor.

DEATH OF PROF. GRANDJEAN.—The FACULTÉ DE NANCY has sustained a heavy loss in the death of Professor Grandjean, professor of therapeutics.

NEUROSES OF THE HEART.—J. Milner Forthergill, discussing the neuroses of the heart, divides the anginose affections into neurosal angina and true angina pectoris. The former is oftenest seen in women at about the climacteric. It is not very dangerous, and is frequently relieved by arsenic. True angina is produced by spasm of the arterioles, which causes a rise of pressure within the heart, and is dangerous or not according to the condition of the heart. It occurs oftenest in men of gouty condition and may be relieved sometimes by iodide of potash.—*Brain.*

TETANUS AND CHLOROFORM.—From an analysis of 415 cases of tetanus, Dr. D. W. Yandell asserts that chloroform is the most efficient agent in its treatment, while calabar bean ranks among the least effective.—*Brain.*

OPTIC NEURITIS, by C. L. LUNDY.—In a small pamphlet the history of this disease is very well described, and illustrative cases added.

NITRITE OF AMYL IN INFANTILE CONVULSIONS.—In a case reported by Dr. Engel, this agent was successfully used. The parents had lost three children previously by epileptiform convulsions of the same character as those affecting the present case. The child, eighteen months old, has continued in convulsions for five hours, and was apparently moribund, when as a last resort five drops of the amyl were given along with ¼ gr. of morphia. The child at once went off into a quiet sleep.—*Phil. Medical Times.*

MEDICAL JOURNALS.—Fifty years ago there were eight medical journals in the United States. Now there are fifty-three of the regular school, nine homœopathic, and seven eclectic. In the last fifty years, 1630 regular journals and 214 homœopathic have been started. Thus about six per cent. of the former and four per cent. of the latter class have survived.

Great Britain and colonies have 36 journals; France 64; Germany, 96.—*Boston Med. and Surg. Journ.*

OBJECTIVE *vs.* SUBJECTIVE.—The science of the physician is above the assertions of the patient.—RICORD.

INSUFFLATION POWDERS *vs.* NASAL DOUCHE.—Dr. H. G. Miller, of Providence, deprecates the use of the nasal douche, and insists all medications should be in the form of dry powder and used by insufflation.—*Proc. Rhode Island Med. Society*, Dec. 18, 1878.

STRAWBERRIES IN CHOLERA INFANTUM.—PROFESSOR STORER, of Harvard, says (*Boston Jour. Chemistry*) he was successful in curing a case of cholera infantum by having *half* of a *strawberry* given to the child *every hour.*

MILK DIET IN CYSTITIS.—The *Lancet* of Dec. 7, 1878, reports a case of chronic cystitis (occurring seven years after lithotrity) as having been cured by an exclusively milk diet.

GRAAFIAN VESICLE DURING PREGNANCY.—Dr. Slaviansky reports (*Med. Centralzeitung*, Oct. 30, 1878) the case of a woman, æt. 24 years, who died in the third month of gestation, and the post-mortem showed ovarian follicles which were on the point of bursting, as well as recent *corpora lutea.* This confirms the opinion enunciated by the late Prof. Charles D. Meigs, that the development of the Graafian follicles continued during pregnancy.

THE CHAIR OF MATERIA MEDICA AT JEFFERSON MEDICAL COLLEGE.—We understand that Dr. J. Solis Cohen, Lecturer on Laryngoscopy and on Clinical Medicine in Jefferson Medical College, is a prominent candidate for the Chair of Materia Medica, left vacant by the death of the late J. B. Biddle, M.D. The other candidates mentioned are Dr. James C. Wilson, Physician to Jefferson Medical College Hospital, and son of Ellwood Wilson, M.D., the well-known gynæcologist; Dr. W. W. Keen, Physician to St. Mary's Hospital; John J. Reese, M.D., Professor of Toxicology in the University of Pennsylvania; J. Ewing Mears, M.D., Gynæcologist to Jefferson Medical College Hospital, and Professor of Dental Surgery in the Philadelphia College of Dentistry; W. W. Van Valzak, lately elected Physician to Jefferson Medical College Hospital; John L. Ludlow, M.D., Physician to the Philadelphia Hospital, and Dr. Robert Bollins, a lecturer of much repute on subjects pertaining to materia medica.

Just as we are going to press, intelligence reaches us, from entirely trustworthy sources, that the name of Roberts Bartholow, M.D., of Cincinnati, is prominently mentioned in connection with the Chair.

LAPARO-ENTEROTOMY.—Dr. C. Studsgard has recently performed this operation for the removal of a foreign body from the colon. The patient, a man of thirty-five, had introduced a bottle into his rectum for the purpose of stopping a diarrhœa. The bottle was nearly seven inches long and two inches in diameter at the base. He soon began to feel pain, and was

brought to the hospital. He was then chloroformed. The anus was slit posteriorly as far back as the coccyx and the hand introduced, but it could not be passed through the third sphincter, and the bottle could not be reached. The peritoneal cavity was then opened by an incision along the linea alba. The bottle was found in the sigmoid flexure, from which it was removed and the wound in the gut closed with catgut sutures. The operation was done antiseptically. There was some suppuration afterwards, and recovery was tedious, but eventually occurred.—*Lond. Med. Record.*

GRADED EXAMINATIONS FOR A DEGREE IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF PENNSYLVANIA.—The Faculty at a recent meeting passed a resolution to the effect that in future the students in the Medical Department entering the final examinations for the degree of M.D., should be graded upon a scale of 100, and that, where the individual grade obtained was high, it should be publicly so announced—the man receiving the highest grade to hold the position of head of the class. This system will first be put into operation during the coming March examinations.

THE FIFTY-THIRD ANNUAL REPORT OF THE MASS. CHAR. EYE AND EAR INFIRMARY, for 1878, is a credit to the surgical staff, Drs. Derby, Shaw, Jeffries, Sprague, Willard, and Blake, on account of the good and successful work accomplished. The report is a model of conciseness and excellent arrangement. "The statistics of cataract operations performed" may be perused with interest and instruction. The officers for the present year are: President, Calvin Ellis, M.D.; Treasurer, F. H. Story; Secretary, E. I. Browne.

UTILIZATION OF BACTERIA—HYPERDISTENTION OF ABSCESS.—Dr. Byron DeWitt, of Oswego, N. Y., sends us a communication with the above heading. The "gist" of the paper may be summed up as follows: A girl, æt. 14 years, suffered from a ranula, which progressively increased in size, in spite of several lancings. Attaining a disfiguring size, it was excised by an eminent New York surgeon. It recurred, and was again removed by excision, and a caustic applied to the open wound. A second time it recurred, and the tumor reached "from the symphysis of the lower jaw to the parotid gland, and half way to the clavicle," when the case was brought to Dr. DeWitt. This gentleman passed a seton in the form of a loop within the tumor, the loop lying upon the floor of the mouth, the ends of the silk being brought out through two separate points of the skin over the swelling. Acute suppuration occurred within the latter and the abscess was opened on the sixth day, discharging a large amount of fetid pus. The seton was left *in situ* for over four weeks, and then removed. The suppurating wound healed promptly. At the end of four years the disease had not recurred.

Dr. DeWitt thinks the acute and putrid suppurative action was set up through the medium of something other than the mere presence of the seton, and believes it was due to the introduction of microscopical germs (bacteria) upon the threads, or by their "worming their way into the sac through the opening made by the needle." Be this as it may, the doctor deserves credit for the success of his treatment of this obstinate case.

SULPHO-THYMATE OF QUINIA.—Signor Cozzolino recommends the *sulpho-thymate of quinia*—a compound of sulphuric and thymic (thymol) acids and quinia—as worthy of ranking beside the sulpho-carbolate or salicylate of the same alkaloid. It is freely soluble in acidulated water, in ether, and in alcohol. Dose is the same as the above-mentioned salts. He also calls attention to soda-thymate as a pleasant carminative (dose: 0.50 gmm. for infants; 3.00 to 4.00 gmm. for adults) mouth-wash in aphtha and muquet, as an injection in vaginal, uterine, and vesical affections.

FRACTURE OF OLECRANON.—Mr. Heath, in commenting to the class upon a case of fracture of the olecranon brought into University College Hospital, with a long splint applied and the hand bandaged from the tips of the fingers, said he thought it was time such directions were abolished from surgical works.

TREATMENT OF BALDNESS.—The following is highly commented upon by Dr. George H. Rowe, in the *Atlantic Medical and Surgical Journal*, for seborrhœa and consequent alopecia. It is the plan of Professor Kaposi: ℞. Saponis viridis (German), alcoholis ää f. ʒ ij.; solve, filtra, et adde ol. lavandulæ, gtt. xx.—xxx. Pour one or two tablespoonfuls upon the scalp, then pour on a little water, rub smartly with the fingers, thus producing a copious lather. After four or five minutes' shampooing this way, rinse the head thoroughly with pure water, then dry thoroughly with a towel. Then apply a little cosmoline. This process causes the hair to fall out in greater abundance at first, but a new and fine growth of hair soon follows.

ICTERIC URINE.—Jaundice may be diagnosticated by an examination of the urine with tincture iodine. Pour a little of the tincture upon the urine, do not shake the tube, and three distinct colored layers may be seen—first layer, violet, the tincture itself; below this, a sea-green layer; and the last, the urine in its original color.

TREATMENT OF BLEPHARITIS BY THE APPLICATION OF VULCANIZED INDIA-RUBBER.—The treatment consists in the application every evening to the affected eye of a round plate of caoutchouc, which is covered with a compressive bandage. In the morning the apparatus is removed, and the eye washed with warm water. Dr. Roy reports several cases treated in this way, with very gratifying success. The only phenomenon noticed, on removing the apparatus in the mornings, was a slight redness of the eye.—*Lyons Médical.*

TREATMENT OF WHOOPING-COUGH BY THE TINCTURE OF MYRRH.—According to Dr. Campardon, pertussis yields readily and easily to the tincture of myrrh. He gives fifteen drops in a tablespoonful of Vichy-water every hour or every two hours. This treatment, however, must be combined with the appropriate treatment for the bronchitis or the pulmonary congestion.—*Lyons Médical.*

TREATMENT OF CEREBRAL APOPLEXY BY INJECTIONS OF ERGOTINE.—Mr. Foster reports two cases of pronounced apoplectic coma, which were treated by the injection of twelve drops of a solution of ergotine, containing seven and a half grains to the drachm of vehicle. In both cases the coma disappeared soon, and recovery took place. The essential condition for the success of the treatment is, that the injection be administered at the beginning of the attack, before there has been time for an extensive extravasation of blood. Mr. Foster recommends injecting the fluid between the muscles of the forearm, and not merely under the skin, where it is liable to excite suppuration.—*The Lancet.*

# Original Lectures.

## A CLINICAL SURGICAL LECTURE.

DELIVERED AT BELLEVUE HOSPITAL,

BY LEWIS A. SAYRE, M.D.,

PROFESSOR OF ORTHOPEDIC SURGERY AND CLINICAL SURGERY IN BELLEVUE HOSPITAL MEDICAL COLLEGE.

### SACRO-ILIAC DISEASE, AND ITS DIFFERENTIAL DIAGNOSIS FROM MORBUS COXARIUS AND SPONDYLITIS.

GENTLEMEN:—We have before us to-day two cases of sacro-iliac disease in the early stage, both of which have been sent to me for disease of the hip-joint; and as this is a mistake so commonly made, and as we also have a child of very nearly the same age of the other two, but who has hip disease in its first stage, I propose to present these cases to you for the purpose of drawing your attention to the minute shades of difference between these two diseases, in order that you may be able to diagnosticate the one from the other without the possibility of an error.

Disease of the sacro-iliac junction is much more frequent than the profession generally suppose, but it is so often mistaken for disease of the hip-joint, or disease of the sacro-lumbar junction, and treated for either one or the other of these diseases for so long a time, that destructive changes occur at the sacro-iliac junction that are sometimes irreparable before the disease has been accurately diagnosticated. It is for this reason that I take the present occasion, with these illustrative cases, to draw your special attention to sacro-iliac disease.

The sacro-iliac articulation is an amphiarthrodial junction between the lateral surfaces of the sacrum and the ilium. The anterior or auricular portion of each articular surface is covered with a thin plate of cartilage, thicker upon the sacrum than it is upon the ilium. The surfaces of these cartilages in the adult are rough and irregular, and separated from one another by a soft, yellow, pulpy substance. At an early period of life, and occasionally in the adult and in the female during pregnancy, they are smooth and lined by a delicate synovial membrane. The ligaments connecting these surfaces are the anterior and posterior sacro-iliac, which generally are so short as to prevent any possibility of motion at this joint; but in certain conditions they become so relaxed as to allow of limited motion, as for instance in the later stages of pregnancy, which allows of an increase in the capacity of the pelvis; but this is a normal elongation. These ligaments may, however, at this time be stretched to such an extent as to be the nidus of future difficulty—the anterior sacro-iliac ligament, which consists of numerous thin ligamentous bands which connect the anterior surfaces of the sacrum and ilium. The posterior sacro-iliac ligament is a strong interosseous band situated in the deep depression between the sacrum and the ilium, behind, and forming the chief bond of connection between these bones. It consists of numerous strong fasciculi, which pass between the bones in various directions. Three of these are of large size; the two superior, horizontal in direction, arise from the first and second transverse tubercles of the posterior surfaces of the sacrum, and are inserted in the rough uneven surfaces at the posterior part of the ilium. The third fasciculus, oblique in direction, is attached by one extremity to the third or fourth transverse tubercle of the posterior surface of the sacrum, and by the other to the posterior superior spine of the ilium; it is sometimes called the oblique sacro-iliac ligament. These ligaments, as I have before stated, are so short as to allow exceedingly limited motion between the bones.

Disease of this joint is, as I have previously remarked, quite common, and I believe invariably of traumatic origin. Nearly all of the cases that I have seen have been directly traced to a traumatic origin. Two of the cases resulted from the children slipping over from the top of a trunk, down between it and the wall, striking upon the posterior crest of the ilium upon the baseboard which passes around the room near the floor. In another—a severe case—the child, while in a swing, which was being thrown backward and forward with great force, struck over this joint against the wall behind him. These blows, or concussions, produce an extravasation of blood under the interarticular substance, which, not being absorbed, forms the starting-point for an inflammatory action; in fact, an ostitis, or periostitis, which, progressing, sooner or later involves the joint, and you have fully developed sacro-iliac disease. Any inflammation at this point produces pressure upon the roots of the sacral nerves, which is made manifest by symptoms at their distal extremities, which resemble in many instances those of spondylitis in the lower lumbar or upper sacral vertebræ. Such symptoms may be: difficulty in urination and defecation, pain in the lower part of the belly, hips, and thighs. But the diagnosis between sacro-lumbar and sacro-iliac disease, or between spondylitis affecting the lower lumbar vertebræ and sacro-iliac disease, is to be made by direct pressure from the sacrum upward, and from the head downward, which, in the case of spondylitis affecting the lower lumbar or sacral vertebræ, will increase the pain, and extension of these parts will give relief. In sacro-iliac disease, however, the pain will not be increased by this procedure, but will be increased by making lateral pressure of the ilii against the sacrum; and by making extension either from the ilium or through the agency of the thigh, relief from pain at the sacro-iliac junction will be given.

The first manifestation of this disease which will probably be observed, will be a peculiar mode of walking, and also of standing. The child will have a peculiar halt in its walk, owing to the fact that pain is produced when the weight of his body is borne upon the limb of the affected side, and he will, therefore, rest the weight of his body upon the leg of that side as short a time as possible, making a quick step with the other leg for the purpose of removing the weight from the diseased one, and upon that leg (the well leg) dwells for a much longer time than the other.

The hip and leg of the affected side are actually longer than upon the unaffected side. In hip disease this elongation of the corresponding parts is apparent and not real, and is dependent upon the obliquity of the pelvis, owing to muscular contraction. In sacro-iliac disease it is actual, owing to the gliding of the ilium downward at the sacro-iliac junction. The actual increase in length can be ascertained, by measurement from the umbilicus to the internal malleoli.

I wish now to direct your attention particularly to the different signs between sacro-iliac disease and hip-joint disease, which may be recognized upon inspection. For this purpose we place these two children, standing side by side in a nude state, upon the table, with their backs toward you. We allow them to stand a few moments to get over their excitement and assume their voluntary position; which position will

be that which affords the greatest amount of comfort. You will observe that they both bear the weight upon the right limb, so as to make a solid column to receive the weight of the body. You observe in the little girl (Fig. 1), who has hip disease on the left side, that the gluteo-femoral fold of this side is lower down

FIG. 1.

FIG. 2.

than upon the right side, and that at its external border the crease is entirely obliterated. You observe also that she has her left knee slightly flexed; the thigh of the same side is also slightly flexed, and you will notice that the toes of the left foot are everted, whereas the left foot of the child (Fig. 2) who has sacro-iliac disease upon the left side is projected at the same angle as the right. This eversion of the foot of the child with the diseased hip shows that there is an effusion within the capsule of the joint.

Now inspect the boy (Fig. 2) who has sacro-iliac disease, who, like the girl, bears the entire weight of his body upon his right leg, thus making it a solid column. But you observe that there is no flexion, of either thigh or knee, of the opposite limb, and you see, as I can move it, that he bears no weight upon it, but it is swinging almost clear of the table. This unequal distribution of the weight of the body upon the lower extremities is produced by the patient bending his trunk to the right, thus elevating the pelvis upon the diseased side and allowing the limb, by its own weight, to remove pressure from the inflamed surfaces.

Observe now the trunks of these two children: the boy with the sacro-iliac disease has his body bent to the right; so that a plumb line dropped from his occipital protuberance passes midway between the fold between the buttocks and the trochanter major of the right side; whereas the child with the hip disease stands with her body slightly bent forward, owing to the contraction of the psoas magnus and the iliacus internus muscles. The feet of the child with the sacro-iliac disease are symmetrically projected in front, but the child with the diseased hip has the foot of the affected side abnormally everted.

We now lay these two children upon their backs upon this firm table, as a mattress or soft bed would so accommodate itself to the inequalities of the body as not to serve our present purpose. We will first direct our attention to the child with the diseased hip. As she lies upon her back we lift both of her lower extremities upward until the entire length of the spine touches the table, so that you cannot pass the hand beneath it. We now move the limbs from side to side until we have the pelvis at a right angle with the trunk, so that a line drawn from the centre of the sternum, over the umbilicus to the centre of the symphysis pubis, will be at a right angle to a line drawn from one anterior superior spinous process of the ilium to the other. When these lines are at right angles to each other, and the spinus processes touch the table, the pelvis and trunk are at right angles with one another, and if there be no disease either within the hip-joint or the muscles that control its movements the limbs can be so extended that the popliteal spaces can be made to touch the table without disturbing the approximation of the spine to the table or the rectangular position of the lines drawn from the anterior part of the body before referred to. We now put this principle to the test, and you observe that the girl's right limb falls upon the table, and by pressing over the knee I bring the popliteal space down so as to touch the table, and have made no elevation of the spinus processes at all so long as I hold her left limb in its upright posture. We now drop the left limb upon the table, and you observe how it remains bent at the knee, while the spinus processes still touch the table as before; but as I press the knee down so that its posterior surface touches the table, you see how instantly the curvature takes place in the lower portion of the spine, so that my assistant glides his hand directly underneath; this is owing to the contraction of the psoas magnus and iliacus internus muscles, which is one of the signs of the early stages of hip disease.

We will now try the same experiment with the child who has sacro-iliac disease. Raising his limbs, we have now the spinous processes upon the table, and the lines before mentioned are at right angles with each other. You observe that as I drop the right leg it comes completely down and no curvature of the spine is produced. I drop the other leg, and it also falls to the table. I now press the popliteal spaces of both legs down upon the table without the slightest elevation at any point of the spinous processes from the table.

We now turn again to the child with the diseased hip-joint. You see her left leg is flexed and slightly abducted. By taking hold of it and pressing the head of the femur into the acetabulum, you see that she instantly winces on account of the pain produced. By making slight extension, she says it feels better. When I make extension and attempt to move the limb, you observe that I can flex the thigh only to a right angle before the pelvis begins to move; whereas I flex the limb upon the right side until the knee touches the trunk, and yet the pelvis is not moved. I can abduct, adduct, and rotate the right limb, as you see, with perfect freedom, there being no rigidity of the muscles upon this side. The moment I attempt these same movements upon the left side, you see the entire body moves as if the hip were anchylosed; in fact, the limb and trunk move together like a solid statue. Now while my assistant holds the pelvis still, I take hold of the thigh above the knee, on the diseased side, and make gradual extension for a short time, and you observe that while this extension is continued I can

make quite free motion at the diseased joint, but the moment this extension is removed and the muscles allowed to contract, the diseased surfaces are brought in contact, and now you see no motion is possible, and the limb becomes, as before, rigid and apparently anchylosed at the hip.

We take the little child with sacro-iliac disease, and you observe that I can flex either limb until the knee touches the thorax. I make abduction, adduction, and rotation on one side as well as upon the other, both hip-joints being perfectly normal. By making direct pressure upward, I produce no pain whatever upon the right side, but by making pressure in the same manner upon the left side he winces slightly, which is one of the symptoms of disease within the hip-joint; but, as you observe, this symptom is not connected with any rigidity of that joint, and pain is therefore produced because pressure has been carried through that joint up to the sacro-iliac junction. When I make pressure directly upon the trochanter major of each side, I give rise to only slight, if any, pain, but when I crowd the ilii together you see how instantly he winces under the agony produced. We therefore exclude in his case *all* disease of the coxo-femoral articulation. and locate it in the sacro-iliac junction of the left side.

You will thus see that by a careful observation of the exact position which different portions of the body will assume under the influence of reflex muscular contraction, and the voluntary attitudes which patients will assume for the purpose of relieving diseased surfaces from pressure, and by extension and compression, you are enabled to locate the disease with an accuracy that cannot be mistaken.

By placing my hand over the diseased sacro-iliac junction I observe an increase of temperature over that of the same locality upon the opposite side. In this case it is so marked that it is readily detected by the naked hand, but in many instances it is not so conspicuous. Under these circumstances the variation in temperature between the two can be made evident by the delicate surface thermometer of Dr. Seguin, which I have found of great use in the diagnosis of obscure cases of this sort.

Having now arrived at a positive diagnosis, we are ready to consider the subject of treatment. In the first place, as there is an increased heat or elevated temperature over the seat of inflammation, we shall apply a half dozen leeches and increase the bleeding by warm fomentations, after which we shall apply ice-bags to the part, protecting the skin by one or more thicknesses of flannel between the ice-bag and the skin as may be necessary to give comfort to the patient. During the mean time the patient is placed in bed, and extension and counter-extension upon the sacro-iliac junction is made. This is done by means of strips of adhesive plaster, placed upon either side of the thigh and leg, and secured by a properly adjusted roller bandage. At the end of the strips of adhesive plaster short tabs of webbing are sewed, which extend beyond the heel. A cross-bar connects the ends of these tabs, and from the middle of this cross-bar a cord extends over a pulley at the foot of the bed, and is attached to a weight for the purpose of continuous extension; the foot of the bed is raised eight or ten inches by placing bricks or blocks under the legs so that the body may become a counter-extending force. As the acute symptoms subside, blisters may be occasionally required; and if the disease still continues, it may be necessary sometimes, and often is, to apply the cautery over the sacro-iliac junction. You should apply your iron at a white heat. and carry it firmly and rapidly over the line of the junction. The application of the hot iron will often be found to relieve pain when nothing else will; the actual cautery will produce an impression upon the deep-seated tissues, causing them to contract, and aid in restoring the circulation of the part to its normal condition.

The disease is ordinarily of long continuance, and confinement in the horizontal posture may be injurious to the general health; and it therefore becomes necessary, if possible, to carry out the same principles of treatment, and, at the same time, give the patient the benefit of out-door exercise and fresh air. This can be very readily accomplished by increasing to a considerable extent the thickness of the sole and heel of the shoe to be worn upon the foot of the unaffected side. In order to lift the patient so that the diseased limb will swing clear of the ground, the weight of the limb of the affected side may be all that is required to give ease to the inflamed joint; but if not, it can be readily increased by adding some lead to the sole of the shoe of this side, when, by the aid of crutches, or the aid of a wheeled crutch, the patient may be permitted to take exercise in the open air with benefit to the general health and without injury to the affected joint. When the horizontal position is again resumed, of course the extension is to be applied as before.

*Prognosis.*—From my own experience in the treatment of a number of cases, some eighteen in number, I should say that the prognosis was good; in fact, in the majority of cases detected in the early stage and properly treated, the result would be a good recovery. In making this statement I am somewhat surprised to find that I differ from almost all other surgical authorities. Dr. Erichsen says, in his Science and Art of Surgery: "The prognosis of this disease is always most unfavorable." . . . . "I have never seen a case recover after the full development of the disease and after suppuration had set in." Holmes, in his System of Surgery, says: "The prognosis in these cases is always unfavorable, but becomes especially so when matter has once begun to form." Ashurst says: "The prognosis of sacro-iliac disease is always unfavorable." Professor Gross, one of our greatest American surgical authorities, says: "The prognosis is always unfavorable; now and then, it is true, a case recovers, but such an occurrence is very uncommon."

Gentlemen, I have now had under my personal attention and observation eighteen cases of this disease, seventeen of whom have entirely recovered. Six of them, when treatment was commenced, had gone to the point of suppuration, requiring a free opening of the abscesses and the removal of more or less necrosed bone. The only death which has occurred among the eighteen cases which I have seen will be found fully recorded in my work upon Diseases of the Joints, page 332; but in this case it will be observed that, after I had made a diagnosis of sacro-iliac disease, the case left me, and was treated for two years for diseased hip-joint. At the end of this time he returned to the hospital for treatment, but died in a few days thereafter; and upon post-mortem examination both hip-joints were found perfectly healthy, but there was a carious condition of both sacro-iliac junctions. May it not be possible that the unfavorable prognosis heretofore so generally given, may be due to the fact that the cases did not come under treatment in their early stage, and that the disease, by being early detected and properly treated, would frequently result in recovery? If such be the case, the time which we have occupied in the consideration of these two cases will not have been in vain.

# CLINICAL LECTURE ON SEBORRHŒA.

DELIVERED AT THE PENNSYLVANIA FREE DISPENSARY FOR SKIN DISEASES,

BY JOHN V. SHOEMAKER, A.M., M.D.

## SEBORRHŒA OLEOSA.

GENTLEMEN:—The first patient whom I shall bring before you is a young woman, twenty-two years of age, a seamstress by occupation, who has been troubled with a greasy appearance of the forehead and cheeks. The nose, in addition, presents a red, shining, and oily look, with here and there enlarged cutaneous vessels. This is one of the varieties of seborrhœa, and consists in an increase of the sebaceous secretion. It may occur upon any part of the body, and more especially the forehead and nose. The diseased patches, in this case, are attended with a burning sensation. The ducts of the sebaceous glands are so much enlarged that they are apparent to the eye. This unctuous skin has a soiled appearance from the dust and dirt that has adhered to its surface. By rubbing over the parts a piece of blotting-paper the increased secretion is absorbed, and the paper looks as if it had been dipped in oil. This greasy and shining condition of the skin is a source of much annoyance to this young woman, on account of the disfigurement it gives to the countenance. In some individuals the secretion is poured out in such quantity as to collect in clear or yellowish drops over the surface.

Nature has supplied abundantly the entire surface of the body—except the palmar and plantar surfaces—with sebaceous glands, which secrete this peculiar substance. These glands exist in large numbers on the scalp, face, back, chest, scrotum, and labia; and they are the parts that are usually attacked by seborrhœa. This material, called sebum, which the glands secrete, removes abnormal products from the blood, acts as a protection and a defence to the skin, serves to retain moisture in the tissues, lubricates the hair, and gives softness and pliability to the integument. It assists in retaining moisture in the eyes and prevents the lids from adhering. It also prevents the entrance of dust and insects into the external auditory meatus of the ear, and keeps the external membrana tympani and the external canal moist. In certain animals, as the skunk, the fox, and the muskrat, this unctuous substance of the skin emits a powerful odor, which acts as a defence and a protection, and it is likewise a means of making known to each other their hiding-places.

This sebaceous material consists of a fluid principle, olein, and two solid constituents, stearin and margarin. When the secretion increases in quantity, and the fluid part—the olein—predominates, we have a diseased condition, named *seborrhœa oleosa*—the variety of the affection that troubles this patient. On the other hand, should the solid portions of sebum be in superabundance, the affection is then known as seborrhœa sicca, and will appear as scales on the skin.

Seborrhœa oleosa can be caused by any irritation or derangement of any part of the system. It is more common in the female than in the male sex. It occurs especially in those who are out of health, in persons who are anæmic, debilitated, and poorly nourished. It is most common at the age of puberty, when there is much activity of the sebaceous glands. In this case the health of the patient is very much impaired, she is anæmic, and shows strong evidence of having general debility, all of which could easily have caused this affection. Cold winds, negligence of washing, local irritants, nervous debility, and a disordered condition of the internal organs, frequently induce glandular congestion, and so *seborrhœa*.

The treatment in seborrhœa oleosa consists in the use of both general and local remedies. It is necessary, in the first place, for the patient to have plenty of fresh air, daily exercise, and the most nourishing form of food. The iron preparations are required on account of the anæmic condition of the patient. The tincture of the chloride of iron will be the most suitable form, in fifteen-drop doses, three times daily, in a wineglassful of water; should constipation follow, a change can be made to the syrup of the lactate of iron. The liberal use of bitter tonics, the mineral acids, and the preparations of pepsin, are often demanded in this affection.

The local treatment is of the utmost importance. The disease is usually stubborn, and only yields after patient and careful attention to the parts. The patches can be washed frequently with a mild soap, and dusted over with either starch, bismuth, lycopodium, or precipitated carbonate of zinc. The use of the cold bath will be of great service by causing the enlarged glands to contract. The application of a mild stimulating lotion of acetate of lead and sulphate of zinc will also prove very beneficial in many cases.

I would, however, more particularly recommend for this patient a mild, stimulating soap that I call *sapo matricaria et sulphuris*. It is composed of one and a half ounces each of oil of theobroma and olive oil, two drachms of powdered German chamomile flowers, one drachm of precipitated sulphur, and one ounce of a weak solution of caustic soda. This soap has been prepared at my suggestion by Mr. L. Wolff, chemist and pharmaceutist, of this city (Philadelphia). I have several very fine specimens of this soap, which I will pass around for your inspection. You will see it has a very pleasant and agreeable scent. All these spots should be well washed with it every other evening just before retiring.

## SEBORRHŒA SICCA.

I next present this patient, Jas. R——, bookkeeper, nineteen years of age, having a large collection of scales over the scalp and a portion of the back and chest. The crown and sides of the head are covered with dry scales and thick crusts, with adherent hairs. Over some portions of the head the crusts are firmly adherent to the scalp, while upon other parts the scales are loosely situated, and in falling off cover the patient's clothes with a scurfy material. Upon removing some of the thickened crusts from the crown of the head, masses of sebum are found to be prolonged down in many of the follicles, some of the ducts are obliterated, and the scalp is also red and swollen. It likewise presents some spots having a dull and withered appearance. The hair is dry, lustreless, very thin, and the patient complains of a constant itching sensation of the scalp. These masses of sebum that plug up the follicles interferes with the growth of the hair, leads to all this unhealthy state of the scalp and the hair, and often ends in premature baldness.

The secretion of these glands that are so abundantly developed on the scalp are very great during the intra-uterine period. The first year of the child's life this excessive secretion frequently continues, and when neglected, and allowed to collect dust and dirt, it irritates the skin, and often produces eczema. In old age, and in syphilis, the scalp is sometimes covered with these dirty, yellowish masses of sebum, which causes the loss of hair in the latter affection.

Upon the patient's back, between the scapulæ, and

over the chest, mainly on the sternum, are dirty yellow crusts in large numbers in both localities. Some of these patches are small, about the size of a silver five-cent piece, and others are large from several of them coalescing. The skin of both the back and chest is slightly greasy, a small number of scales are observed scattered about the patches, and the ducts of the follicles are open and filled with sebum. These sebaceous crusts exist in some cases on the forehead, nose, and cheeks, and both Biett and Bazin relate a case in which the sebaceous glands over the whole surface were filled with inspissated sebum. The genital regions of both sexes are frequently attacked with seborrhœa, on account of the parts being so abundantly supplied with sebaceous glands. In the male, the glandulæ tysonii seu odoriferæ of the corona glandis and of the cervix of the penis secrete a peculiar soft, white and caseous material, which frequently becomes copious, rapidly decomposes, especially when the prepuce is long, gives off an unpleasant odor, and occasionally causes balanitis. In the female these sebaceous glands are situated around the labia and clitoris, and frequently pour out the secretion in large quantity, giving rise to a diseased condition of the parts.

This patient has a tuberculous family history, and it is evident on his countenance. His hair and complexion are both light, and his extremities are cold, showing the feeble state of the circulation. In addition, he has been troubled for some years with constipation, and by this reflected irritation could very easily give rise to this affection. Tuberculous subjects are especially disposed to both seborrhœa and acne. The causes I mentioned in connection with the first case may likewise bring about this same form of seborrhœa, providing the solid principles of the sebum, the stearin, and margarin should predominate.

Seborrhœa might be mistaken for eczema or lupus erythematosus. It differs from lupus in the following points: Should a crust or scale be removed in seborrhœa, it will be found to be prolonged down in the follicle, the skin beneath being pale or slightly reddened; while in lupus the part is both reddened, swollen, and infiltrated. Again, seborrhœa is a functional disorder, and is never followed by scars; while lupus is a new cell growth, and there is always a tendency to repair by the formation of cicatrices.

The treatment for the patient will be both local and constitutional. He should take daily exercise and plenty of good, nourishing food. I shall also prescribe a bitter tonic three times daily, and the extract of malt, one tablespoonful in a glassful of milk, with meals. As soon as the patient's digestive organs are in the proper condition, we will change these remedies for one tablespoonful of cod-liver oil with ten drops of the syrup of the iodide of iron, three times daily, one hour after meals. The following mild aperient pill will be very beneficial for the sluggish condition of the bowels: powdered aloes and rhubarb. each, twenty grains; extract of hyoscyamus, six grains; extract of belladonna, one grain; and oil of cinnamon, one drop. Make twelve pills. Dose, two every other night, when necessary. The crusts and scales must be removed by oil dressings. The patches on both the head and body should be soaked with olive oil until the masses become soft and can be easily removed. If, however, the crusts on the head should still adhere, then a flannel cap, saturated with oil and covered with oil-silk, should be tied on at bedtime and allowed to remain about ten or twelve hours. After the crusts and scales have been thoroughly macerated, the dressing should be removed, and the parts well washed with tepid water and the sapo matricaria et sulphuris. About every second or third evening, a copious lather should be made from the soap, and actively rubbed into the scalp and the patches over the body. The parts should then be sponged with tepid water and rubbed dry with a rough towel. I have used this medicated soap in dispensary and private practice, in seborrhœa and the various scaly eruptions, with remarkably good results. In seborrhœa it will cause the enlarged glands to contract, the skin to become healthy, and the disease to disappear.

After using the soap, the following preparation will be a very good and elegant application to lubricate and soften the dry condition of the hair and the scalp: beef marrow, two ounces; white wax, half an ounce; tannate of quinia, one drachm; balsam of Peru, three drachms; oil of rose, five drops; oil of verbena, three drops; essence of ambergris, one-half a drachm. Mix, and use daily as a pomade.

# Original Communications.

## ACUTE INFANTILE INTUSSUSCEPTION, WITH THE HISTORY OF THREE CASES.

By W. W. HEWLETT, M.D.,

BABYLON, L. I.

The slipping of a portion of intestine within another portion of intestine, constitutes an intussusception, or an invagination. It consists of two distinct portions, an external or receiving portion, forming the sheath, and an internal or protruding portion, forming the plug. The sheath consists of one, and the plug consists of two cylinders. There is a receiving, an entering, and a returning layer; and consequently two mucous and two peritoneal surfaces oppose each other. Owing to the traction of the mesentery the plug never lies parallel with the sheath, but always in the form of a curve, or a coil. Owing to the length of the plug, and to the degree of traction of the mesentery, is the obstruction of the intestinal tube, partial or complete. The lengthening takes place mainly at the expense of the external portion—the external peritoneal layer of the intussusception becomes *inverted* much more readily than its internal mucous layer becomes *everted*. Intussusception may occur at any part of the large or small intestines; the most frequent point being the lowest part of the ileum, a portion of the ileum becoming prolapsed through the ileo-cæcal valve.

Out of forty-five fatal cases referred to by J. Lewis Smith, thirty-eight began at this point. It is less frequent entirely in the small than in the large intestines. It is so rarely found entirely in the small intestines that even M. Rilliet asserts that intussusception never occurs there, but this has been disproved by more than one observer. This variety of intussusception rarely or never occurs before the age of three months. In the fifty-two cases recorded by Smith, twenty-three occurred between the third and the sixth month. Leichtenstein says, "the first year after the third month is remarkable for a special frequency." In a collection of twenty-five cases by Rilliet and Barthez there was none under the age of four months. It is remarkable that no case has been reported under the age of three months.

* Abstract of a paper read before the Suffolk County Medical Society.

The *morbid anatomy* varies according to the duration of the disease. Primary inflammatory invaginations are always descending.* As soon as the invagination occurs the central becomes in effect a foreign body, excites peristaltic action, and is forced farther and farther down the alimentary canal. The compression and dragging to which the implicated mesentery is subjected, causes venous obstruction, with swelling and sanguineous infiltration of the central portion, producing bloody exudations from its mucous surface. If life be prolonged, peritonitis is developed, which is generally limited to the invaginated part, and produces adhesions between the opposing serous surfaces. In recent cases the lesions are merely those that are produced by compression, viz., swelling and sanguineous infiltration of the mucous coats. In protracted cases there is more or less gangrene of the central portion. The gangrene is more to be observed at its neck and at its extremity, the effects of traction and compression being more exerted at the ends of the central portion. The central portion is in some cases entirely separated by mortification, and is discharged in a single piece, or it may be discharged gradually in small shreds. In either event union and cicatrization of the intestinal tube may ensue, and be followed by the recovery of the patient. In exceptional cases, where general peritonitis occurs, perforation of the intestine from over-distention takes place above the point of intussusception. The length of the central portion varies from a few inches to a foot or more. The sheath of the intussusception becomes greatly reduced in length, which accounts for the fact that the invaginated part may be felt in the rectum, when only a very short portion of the large intestine enters into the formation of the central portion.

In treating of the *causes* of intussusception we must first consider the fact that in the large majority of cases the displacement begins with a protrusion of a portion of the ileum through the ileo-cæcal valve. Anatomical peculiarity, therefore, takes precedence among the predisposing causes. Sex is also mentioned as a predisposing cause. It is true that the disease occurs more frequently among males than in females; but is it not also true that male infants, as a rule, are more susceptible to the various influences that produce disease, and have less vitality than female infants? A favorable condition for intussusception may be presented by a tetanic or tonic contraction of the circular muscular fibres of the intestine, and a distention of the intestinal canal below the point of contraction, from the accumulation of flatus, thus producing tenesmus and increased peristaltic action. Paralysis of a limited portion of the intestine may operate as a cause of intussusception; also the receipt of injuries, or an intestinal polypus. Iliac tenesmus, or cæcal tenesmus from irritation of the ingesta, may produce a prolapse of a portion of the mucous membrane of the ileum through the ileo-cæcal valve, in the same way that rectal tenesmus plays such an important part in the production of prolapse of the rectum.

The *symptoms* of intussusception are usually developed suddenly. The infant begins to cry violently without apparent cause. The nurse finds herself utterly unable to soothe it. A natural evacuation from the bowels may occur. Vomiting is the first prominent symptom that awakens fear. The vomiting soon becomes persistent and frequent. In a few hours one or more small bloody passages occur. If, after a hasty examination, the physician prescribe merely for the symptoms, he will increase the child's suffering, and add to the terrible dangers of the disease. If he make a careful examination of the abdomen he may find an elongated tumor, which is generally located in the right or the left iliac region. He may feel a tumor in the rectum, or possibly protruding from the anus. The blood that is passed will be slightly mixed with mucus or serum; the bowels are obstinately constipated. If a cathartic have been administered he will be informed that the baby threw it up. The further progress of the cure will be greatly influenced by the treatment. Should a cathartic be given that is retained until absorption occurs, all of the symptoms will be intensified, and to those above described will be added that of tenesmus. The temperature is normal at first, but after two or three days, if life be prolonged, peritonitis will be developed, and we then have the symptoms of that disease superadded. The pain is paroxysmal in character; vomiting is rarely or never absent. It may become stercoraceous, but this is believed to be exceptional. In infants, above the age of twelve months, hemorrhage from the anus may not be observed.

It is a very important diagnostic symptom. Meteorismus, to a greater or less extent, is always present. Convulsions in some cases, though rarely, take place. West says: "In the majority of cases convulsions come on a few hours before death, which always takes place within a week." In the three cases of which the histories are herewith presented, convulsions did not occur in either, and one case survived until the tenth day. Meigs and Pepper say: "Death takes place within five days, as a rule." In thirty-three cases embraced in the statistics of J. Lewis Smith, the largest number of deaths took place on the third day. This agrees with the statement of Vogel, who says: "As a rule, death takes place on the third or fourth day." The disease may *terminate* in apparently spontaneous reduction and recovery, which is extremely rare; but two cases illustrative of this happy termination are cited by West. It may terminate in recovery by reduction from artificial means; also by sloughing of the invaginated portion, which, so far as has been ascertained, has never yet occurred under the age of thirteen months. According to Lichtenstein, "the separation takes, in the majority of cases, from the eleventh to the thirteenth day;" but this observation has reference to cases of all ages. Cases are referred to where the symptoms of invagination became chronic, and continued for weeks and even months, but these cases doubtless occur only in children above the period of infancy. Death may occur from collapse, peritonitis, or from exhaustion.

There is no absolute pathognomonic symptom of the disease, and it is difficult, particularly in the early period of the attack, to make the *diagnosis*. Intussusception may be confounded with acute indigestion; gastritis from poisoning; acute dysentery; colic; cholera infantum; and with other forms of internal strangulation of the intestine. The sudden development of abdominal pain in an infant above the age of three months, with persistent vomiting, soon followed by bloody stools and tenesmus, point very strongly to intussusception. If the presence of an abdominal tumor of recent occurrence can be ascertained, there can scarcely exist a doubt as to the special character of the disease. If, with the above described symptoms, a tumor can be felt in the rectum, a positive diagnosis can at once be made.

What are the indications for *treatment*? *First*, the relief of pain; *second*, the reduction of the displaced intestine; *third*, the prevention of inflammation.

The first indication is to be accomplished by the use

* Vide Ziemssen's Cyclopædia, Vol. VII., p. 611.

of opium, which not only relieves pain, but arrests peristaltic action and tenesmus, thus preventing a still further descent of the invaginated bowel. Reduction should be attempted as early as possible, either by injections of warm water, or of air or gas, or by the introduction of an œsophageal sound, with a sponge attached, in the rectum; and lastly, by opening the abdominal walls. Inflammation is to be prevented by keeping the intestines as quiet as possible with the free use of opium, by applying soothing remedies externally, allaying nausea and vomiting, and by giving only that kind of nourishment that leaves the least residuum. Where meteorismus is excessive, the intestine may be punctured with a fine trocar, and the pent-up gas allowed to escape. If the lesion be wholly within the small intestines, our efforts at reduction by injections will be unavailing, for it has been repeatedly shown that the ileo-cæcal valve will rupture before it will allow of the passage of fluid into the ileum. Should the invaginated portion be within reach of the finger, an attempt may first be made to push it up with the œsophageal sound and sponge. This method, that is known as Nisson's, has alone been sufficient in a few cases in effecting reduction. At least it will prove serviceable by giving more space in which to operate with injections. In using the injections, a fountain, or a Davidson's syringe should be employed. The water should be lukewarm. After introducing the nozzle of the syringe, the fingers of the left hand are to be used in compressing the soft parts about the anus, which will tend to prevent a regurgitation of the liquid. When a considerable amount of liquid is injected, the abdomen should be gently manipulated with the hands. It will generally be found that only a small quantity of liquid will remain, the larger proportion being rapidly and forcibly ejected. If no appreciable amount of liquid be retained, another attempt should be made, by gentle manipulation with the sponge and sound, to push the tumor above the rectum; afterward the injection is to be repeated. If this prove unsuccessful, the infant may be allowed to rest for an hour or two, when the injection is to be repeated. After sufficient trials in this way, if relief be not obtained, a resort should be had to inflation. For this purpose a common pair of bellows may be used, to the nozzle of which an elastic tube may be attached. The latter is to be introduced, if possible, high up in the rectum. J. Lewis Smith recommends for this purpose two or three quart bottles of highly charged carbonic acid water, with the portion of a tube of a Davidson syringe. Either of these means, in a very small minority of cases, may prove successful; but whether water, air, or gas be forced into the rectum, it is essential to produce a marked degree of distention; also that the patient should be as nearly as convenient in the inverted position, and while distended, the abdomen should be gently manipulated by the hands. In the event of failure of these means, after repeated and satisfactory trials have been made, what are we to do? Are we to give up all active attempts, and devote our efforts to the prolongation of life, hoping that the invaginated gut may slough, and be followed by the recovery of the patient? This would be a perfectly admissible plan of treatment, and one that would doubtless be followed by the great majority of practitioners. So far as has been ascertained, the youngest child that has recovered after mortification and discharge of the gut took place, is thirteen months.* The chances for recovery, then, for an infant under one year of age, and under these circumstances, are so slight that this purely *expectant* plan of treatment is almost equivalent to abandoning it to a fatal termination. The preponderance of authority in the department of diseases of children is averse to the operative method of reduction. Dr. H. B. Sands operated successfully in the case of an infant aged six months.*

What do the surgeons say? Erichsen (page 818 of *The Science and Art of Surgery*, second London edition): "If, however, it can be satisfactorily made out that there is an internal obstruction, and more especially if the intumescence can be felt, it will evidently be the duty of the surgeon to give the patient his only chance." Bryant (page 297 of *The Practice of Surgery*): "Operation in intussusception is scarcely justifiable." Holmes (page 619, vol. iv., in the edition of 1870): "The proposal to open the abdomen should not be sustained." The writer herein also explains his disbelief in the injection of air or water. Gross (page 677, vol. ii., fifth edition of *The System of Surgery*): "In internal strangulation depending on a twist, an invagination, or the interception of the bowel through an aperture in the omentum, the diagnosis is so uncertain that the proper time for relief is usually allowed to pass before the operation is decided upon, and when at last it is performed, the case must almost necessarily result fatally."

Hamilton (page 769, second edition of *A Treatise on Surgery*): "It is only in adults that such a procedure could encourage any hope of success."

The paper closes with the following assertion: Where the diagnosis of intussusception is *positive*, after proper and judicious attempts, without relief, have been made in an infant that has been previously healthy, that subsists on natural food, whose parents are free from constitutional vice, where the operation can be performed before local peritonitis has occurred, within the first twenty-four or thirty-six hours, it can scarcely be doubted that the operation of laparotomy is justifiable.

THREE CASES OF ACUTE INTUSSUSCEPTION IN INFANTS.

CASE I.—Male, age five months. Had occasional attacks of colic and indigestion. The general condition of the child had always been good. Was summoned at night, Sept. 5th, 1872. Found the patient apparently suffering severe pain. Vomiting occurred after every time of nursing. Bowels had not moved for nearly twenty-four hours. A dose of castor-oil that had been given was promptly rejected. Ordered Dover's powder and calomel in combination (two to three grs.), and warm fomentations to the abdomen; also, should powder be vomited, to give an enema. Three hours after was summoned in haste, and found all of the symptoms intensified. Two bloody evacuations from the bowels had occurred. An examination of the abdomen revealed nothing abnormal. With the index finger in the rectum I could distinctly feel an elongated tumor, which was at once recognized as an intussusception. The subsequent treatment consisted of frequent and copious injections of warm water, opium as indicated, and brandy. The child was allowed to nurse to a moderate extent. Vomiting occurred frequently, but did not become stercoraceous. On the fourth day the abdomen became tympanitic and tender; the patient was feverish; slight muco-sanguineous discharge occurred two or three times daily until the tenth day, when death took place suddenly.

On post-mortem examination the abdominal cavity

* Vide J. Lewis Smith's Diseases of Children, fifth edition, page 675.

* Vide New York Medical Journal, for July, 1874.

was found to contain a large quantity of gas and liquid feculent matter that poured through an opening in the ileum. Perforation had taken place from extreme distention, as the small intestine at this point was equal in size to the large intestine. The central portion of the intussusception, including a portion of the cæcum and about ten inches of the ileum, was tightly forced downward into the large intestine, the latter being greatly puckered up and forming the sheath of the intussusception. The entire mucous surface of the central portion was very much swollen, and at a point near its neck there was marked discoloration from gangrenous inflammation. There were slight adhesions between the opposing peritoneal surfaces, and numerous patches of exudative plastic material were perceived at and also in places remote from the local lesion. Hemorrhagic discoloration in numerous places on the peritoneal surface of the small intestines, and dilatation of the blood-vessels of the mesentery, were observed.

Case II.—Male, aged four months, had been in excellent health up to the last day preceding my visit (Aug. 16, 1873). The child began to cry violently, and after a few hours vomiting took place. A mustard plaster was applied to the epigastrium, and three grains of hydrarg. cum creta were directed to be given. Eight hours after having prescribed the above I first saw the patient. The child had cried almost incessantly, and vomited everything it took. The bowels had moved once after taking the cathartic, and the evacuation was perfectly normal in appearance. The abdomen was tender on pressure over a small space a little to the right of the umbilicus, but was everywhere else uniformly soft and natural. An enema of tepid water was given, which was promptly rejected. The finger introduced into the rectum came in contact with a protruding mass, and after its removal was found to be soiled with a bloody discharge. Opium was then given in sufficient doses to render the patient comfortable. Repeated efforts were made with a pair of bellows by inflation, and with the syringe by injections of tepid water, to reduce the invagination, but all failed. There was little or no fever at any time, and the general treatment was that as described in connection with the history of the preceding case.

Death took place on the fifth day. No post-mortem examination was made.

Case III.—Female, aged five months. Had always been healthy. Was one of the good babies that "never cried." First saw the patient about 10 A.M., Oct. 16, 1874. The child slept well the night previous until 4 A.M., when it commenced to cry, and the mother says "kept it up for three hours, when it fell asleep." After about three-quarters of an hour it awakened, and cried until my arrival. The bowels had moved naturally the day before, a bloody evacuation had occurred that morning. The child had vomited three or four times since 4 A.M. On examination of the abdomen an elongated tumor was found in the left lumbar region, which was somewhat tender on pressure. No tumor could be felt with finger in the rectum. Ordered warm fomentations to the abdomen and a warm-water injection. Left a solution of sulphate of morphia to be given as required to relieve pain. Saw patient again at 6 P.M. Two bloody stools had been passed, and the child vomited after every period of nursing. Had slept a good deal during the day, which was due to the morphia. The mother had given two injections, but they came right away. On exploring the rectum with the finger a tumor was felt high up, which was pronounced an intussusception. The treatment of this was similar to that adopted in Case II., but in addition, in order to effect a reduction, an attempt was made with a piece of rubber tubing, to which a sponge was attached. The sponge having been introduced into the rectum, it was pushed up gradually and slowly, while the abdomen was gently manipulated externally. While treating this case I was surprised on the morning of the fourth day by the intelligence which was brought by the father, that the child was so much better that I need not go to see it. "The bowels moved and the baby has had a comfortable night." Curiosity impelled me to visit the child, who was found very comfortable from the action of the opium, and by abstaining from efforts to reduce the invagination for several hours. The evacuation consisted of mucus slightly tinged with blood. The abdominal tumor and the rectal tumor were *in statu quo*. Death occurred on the seventh day. A post-mortem examination revealed the existence of an intussusception, which consisted of the cæcum and nearly eight inches of the ileum. The mucous surfaces were very red and much swollen. The peritoneal surfaces were lustreless and discolored from hyperæmia in the immediate location of the intussusception, but everywhere else they presented a perfectly natural appearance.

## Progress of Medical Science.

Acute Saponine-Poisoning and the Value of Saponine as a Local Anæsthetic.—In 1867 Eugene Pelikan expressed the belief, as the result of physiological experiment, that saponine would in time come to play a role of some importance as a local anæsthetic. Köhler also experimented with the drug on frogs, rabbits, and dogs; but, while thinking it possible that it might have a future as a local anæsthetic, he laid great stress on the dangers connected with its entrance into the circulation (paralysis of the heart, of the vaso-motor and respiratory centres). Schroff gave it internally to men in doses of as much as two grains without producing poisonous effects, and thought that its action in depressing the pulse and temperature might make it useful in hypersthenic fever. Eulenburg seems to have been the first to employ the substance clinically. He injected it hypodermically in three cases of neuralgia; but, while all the painful, local and alarming general symptoms of the drug were produced, the neuralgia was not relieved. Finally Dr. Keppler, in order to determine the real value of saponine as a local anæsthetic, undertook a series of experiments on himself, and the following are the results obtained and the conclusions he drew from them.

In each experiment he injected 0.1 gramme (gr. iss.) of saponine into the inner side of the left thigh. The immediate local effect was the development of a cutaneous inflammation resembling erysipelas, but much more painful. This inflammation increased in violence for twenty-four hours, remained stationary for the same length of time, and then diminished rapidly. The general symptoms produced by this violent local irritation were the same as would be excited by any very painful injection. The specific local effects of the saponine—anæsthesia of the point of injection to other irritants—set in about fifteen minutes after the injection, and persisted less than fifteen minutes. The area of the anæsthesia was identical with that of the paleness caused by the injected solution, *i. e.*, it extended as far as the saponine solution spread in the subcutaneous tissue, and bathed directly the ends of

the nerves. Of the specific general effects of the drug the most important was undoubtedly its action on the temperature. This rose steadily for three hours, and then fell gradually to the normal point, which it reached within twenty-four hours. For the next two days there was some fever, but on the fifth day the temperature was far below the normal point, reaching the collapse point of 93°. The pulse also was somewhat elevated during the first three days, and fell on the fifth day to sixty-five per minute. The rise in the temperature during the first three days was evidently due to the violent local inflammation, and it would have been much more excessive had it not been for the specific depressing action of the drug on the pulse and temperature; this manifested itself in its full power on the fifth day, after the local inflammation had subsided. The fact that the drug could exert such a powerful action five days after a single injection is evidence of its slight diffusibility; this same quality would make its excretion from the body more difficult, and hence it must be classed among the drugs with cumulative action.

Other general effects of the drug were marked bodily and mental depression, somnolence, and salivation. The pain, exophthalmus, and strabismus of the left eye, and the greater depression of the temperature on the left side ($2\frac{1}{5}$° on the fifth day) must be ascribed to direct alteration of the nerve-centres, while the pain in the knee and hip, and the swelling of the glands in the left groin, were evidently due to direct transmission of inflammation.

The conclusion Dr. Keppler draws from his experiments is, that saponine does not deserve to be mentioned among the anæsthetics that can be utilized in surgical practice. As an antipyretic, however, it is more deserving of consideration, the dangers connected with its administration not being sufficient to counterindicate its careful employment. Its subcutaneous administration is unfortunately very painful, but not more so than hypodermic injections of corrosive sublimate. In fact, the violent local irritation produced by the injections superadds a derivative to the antipyretic action of the drug, which, in his opinion, would make it especially valuable in the treatment of those cases of acute pleurisy and pneumonia that are attended by high fever and threatening cerebral symptoms, and also of those malignant cases of endo- and pericarditis that run a course resembling that of a severe typhus. The maximum dose to be employed should not exceed one grain. Moreover, it is well known that an intercurrent erysipelas sometimes leads to the rapid absorption of inflammatory indurations, and even of specific tumors; and as the anatomical changes in the skin produced by saponine injections closely resemble those of erysipelas, Dr. Keppler suggests a methodical trial of the injections in cases of sarcoma, lupus, etc., inaccessible to operation, in the hope of thereby bringing about resorption.—*Berliner klin. Wochen.*, Nos. 32, 33, and 34, 1878.

A Case of Asthma Millari.—Dr. Jacobs, of Cologne, reports the following case of this disease, which is so rare, that in an extensive practice of forty-five years, he has only met with eight or ten cases of it. The patient, a girl seven years of age, had been suddenly seized while in bed with a violent attack of suffocation. She was perfectly conscious, her voice was not in the least hoarse, the face and extremities were covered with a cold sweat, the lips were blue, the pulse was small and could scarcely be counted, and, in a word, all the symptoms of collapse, with cyanosis, were present. The respiration was exceedingly difficult, all the accessory inspiratory muscles being called into play. The child gasped for air, but expelled the air again immediately. Auscultation revealed only weak respiratory murmur and scarcely appreciable heart-sounds. There were no abnormal sounds in the larynx or bronchi, and no fever; the abdomen presented nothing abnormal; the bowels and bladder had recently been evacuated; there were no throbbing of the carotids and no swelling of the jugulars. The tongue was clean and moist, and the child put it out readily. The diagnosis was asthma millari, and the prognosis was unfavorable, because death very frequently occurs in the first, and almost invariably in the second attack. If, however, the attack be not repeated within twenty-four hours, the patient generally recovers. The treatment consisted in irritation of the skin and pharynx, drawing out and pressing down the tongue, and the administration of musk. One-third of a grain of musk was given every half-hour, and four hours later the doctor found the child sitting up in bed, playing, and to all appearances perfectly well. A careful examination then revealed nothing abnormal, and particularly no redness or swelling of the laryngeal mucous membrane. The after-treatment consisted only in nourishing diet, and rest in bed for two days, with pleasant occupation. The attack has not been repeated, and the prognosis is now favorable, as the disease has never been observed after the eighth year, and the patient will soon attain that age.

The post-mortem appearances in the fatal cases of asthma millari that have thus far been recorded have been negative, with the exception of hyperæmia of the lungs and the presence of small blood-coagula in the right heart. In two of his own cases Dr. Jacobs found, in addition to the pulmonary congestion, petechial suggillations on the pleura pulmonalis, in the heart, and in the aorta. He believes the affection to be entirely distinct from the so-called asthma thyricum or laryngismus stridulus, and from spasmus glottidis infantum. The diagnostic points from those affections are: 1. Asthma millari attacks only children from two to eight years of age, and especially girls. 2. It attacks children of well-to-do parents rather than those of the poor. 3. The attack sets in suddenly without previous illness, without catarrhal manifestations, and without demonstrable cause. 4. The voice remains clear and the speech distinct. 5. The sensorium is unclouded. 6. There are no abnormal sounds, such as a cry or stridor. 7. The health of the children in the intervals between the attacks is perfect. 8. The affection is not attended by fever. Numerous remedies have been recommended for the affection in addition to musk, ex. gum camphor, assafœtida, potassium bromide, belladonna, clysters of chloral hydrate, subcutaneous injections of morphine, inhalations of amyl nitrite and chloroform, touching the pharynx with liquor ammonii caustici, etc., but Dr. Jacobs has had no practical experience with any of them.—*Deutsche med. Wochen.*, September 21, 1878.

Arsenic in Green Leather.—Two officers in Königsberg recently suffered from eruptions on the head, which came on after they had been wearing for a short time helmets lined with green leather. One of them, a colonel, was for a time even dangerously ill. A chemical examination showed that the leather with which the helmets were lined contained arsenic.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, February 15, 1879.


## THE ADULTERATIONS OF FOOD AND MEDICINE.

At the last meeting of the Medical Society of the State of New York, Dr. E. R. Squibb, of Brooklyn, presented the draft of a proposed law for the detection and punishment of adulterations of food and medicine. As it is quite likely that the bill will soon be brought to the attention of the State Legislature, we take the opportunity of presenting a synopsis of its provisions.

It is not saying too much to assert in advance that the document has been prepared with great care, and that every suggestion tending towards its efficiency has been heeded; in fact, the draft is the result of thorough discussion of the subject by a Joint Committee of the New York Academy of Medicine, the New York Academy of Sciences, the Medical Society of the County of New York, the Therapeutical Society, the New York College of Pharmacy, the Medico-Legal Society, and the Public Health Association. Taking advantage of the experiences of the English "Sale of Food and Drugs Act," certain defects are guarded against in the present bill; for instance, general definitions as to what constitutes adulterations are carefully avoided, and specific ones presented instead. Again, the question as to intent to defraud is not considered, it being sufficient to establish the fact of fraud to secure conviction.

The question as to what constitutes adulteration in food or medicine is one, the consideration of which naturally presents itself in this connection. "Food" is defined as embracing every article used for food and drink, or in the food and drink of man and animals; while the term "medicine" is held to include every other article used for the preservation of health or the relief and cure of disease in man and animals, embracing antiseptics, disinfectants, and cosmetics.

A standard of purity is made by dividing articles of food into two classes, simple and compound. The standard of simples is fixed at the average quality of the substances in their natural condition (when so used), or after preparation by drying, grinding, packing, etc., without damage, according to the best methods, and without the admixture of foreign substances beyond what is essential—as salt in meat—to their preservation in a wholesome state. The standard for compound articles is fixed by the publicly known formulas according to which they should be compounded, or the labels or descriptions fixed to the compounds as sold or offered.

The standard for simple articles of medicine is that made by the United States Pharmacopœia. When any medicine is not embraced in the list of the Pharmacopœia, the statement of some commonly accepted standard of authority is to decide respecting the purity of the article. If the simples are pure, the compound must be pure; and hence the formula, recipe, or label is here held to be conclusive as to the compound it calls for. In patent medicines, the testimony of the owner's private formulas is conclusive, provided always that no compound shall contain any poisonous or hurtful ingredient, not specified on the label; a baking powder containing alum, or a cosmetic containing lead—neither being stated upon the label of the compound—subjecting the seller to all the penalties of wilful adulteration. A patent medicine containing any such deleterious or toxic ingredient not plainly shown on the label, subjects the proprietor to prosecution and penalty.

The adulteration of articles of food or medicine consists, first, in adding one or more substances to another, as corn-meal in flour, whereby the strength, purity, quality, or value of the substance is reduced, with the effect of tending to deceive the public; secondly, as in artificial wines or mustard, in the substitution of one substance for another; thirdly, as in skim milk or partly exhausted tea, coffee, or drugs, in the abstraction of any part of the substance with the effect to reduce its value; fourthly, as oleomargarine for butter, in the application of a name belonging to one substance to another substance, thus tending to deceive the consumer; and, fifthly, in the presence in any substance of any impurity or foreign matter, either natural or accidental, if in unusual proportion, as dirt in food or medicine, and metallic salts in canned goods.

Whenever different qualities of the same are mixed together, adulteration is charged. The same is said for dilution of any kind, as water in milk, the addition of coloring, coating, or polishing matter, etc., are also defined as adulterations.

There is no doubt that the parts of the proposed bill defining adulterations and laying the foundations for such legal action as may be necessary, are as complete and perfect as human foresight can make them. The question regarding the carrying out of the law is one which will, however, invite discussion, and will

doubtless give rise to differences of opinion upon the subject. Dr. Squibb proposes that the duty of prosecution shall be imposed upon a State Bureau of Health, which shall have special boards of inspection and prosecution, and which boards shall be competent to act on the complaint of any consumer of an adulterated article.

We do not presume at present to offer any suggestions as to the working of such a law, reserving any comments thereon until the plan is perfected, and until such time as it shall be ready to be presented to the Legislature.

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RESTRAINT IN THE TREATMENT OF THE INSANE.

In the care and treatment of the insane, the question of mechanical restraint has for many years received the greatest attention from alienists. The reaction from the old horrors of the chain, the dungeon and the lash, led at first to a great deal of sentimental nonsense, which culminated finally in the denial by many leading authorities of the value or need of any mechanical restraint at all.

Such views could not long be sustained, however, and they never had very wide prevalence in this country. At the present time, while the utility of restraint is generally acknowledged, very great efforts are being made every year to get along with the least possible amount. For it are substituted watchful care, regular work, drilling exercises, or whatever occupation may tend to teach the patient self-control. According to Dr. Shew, Superintendent of the Connecticut Hospital for the Insane, ninety per cent. of patients are now treated in American asylums without any mechanical restraint. This percentage has been increased especially within the last ten years.

It is pleasant to be able to record the declining years of that hideous array of apparatus which used to act with such happy reciprocity in narrowing the liberty and comfort of the patient, while enlarging that of the attendant.

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STRENGTH OF THE VARIOUS SCHOOLS OF MEDICINE.

The Illinois State Board of Health has recently collected statistics which show very accurately the distribution of the medical men of that State. As every practitioner is obliged to obtain a certificate from this board, there is an opportunity of obtaining his status which has been carefully improved. The total number of physicians is 4,950; of these, 3,646 are Regular; 437 Homœopathic; 456 Eclectic; 87 Physio-medical; not stated, 336; all others, 38.

It will thus be seen that while the proportion of the Estray to the Regulars is sufficiently large to remind us that the ladies continue to like Homœopathy and kindred delusions, it is not as large as has been claimed by some. It is to be remembered also that Illinois is one of the few States which supports, upon the affluence of a five thousand dollar income, both an Eclectic and a Homœopathic medical school.

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REPORT OF THE SURGEON-GENERAL OF THE NAVY.

When the previous annual report for 1877 appeared, we referred to the fact that the examining board had not been able to find good enough men to fill the vacancies in the service. In the recent report for 1878, it is stated that there are only six of these vacant places at present remaining.

The severe competitive examinations have resulted in securing to the navy a superior class of medical men; and the report testifies to the efficiency of their services. There are recorded 10,457 cases of disease, injury, etc., which were treated. The mortality was two per cent.

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SUBSTITUTES FOR ALCOHOL.

We find that the efforts of temperance reformers are turned much more than formerly towards introducing some substitute for alcohol. Failing in the direct attack they are attempting a flank movement. There is now manufactured to meet in part these demands a series of aërated waters which equal many wines in delicacy of flavor. Ales and beers with an inappreciable amount of alcohol, and wines from unfermented grapes are also made, and form agreeable drinks, which may, to some extent, satisfy the demands of social occasions. For the weariness that follows muscular or mental exertion, the best things are food and rest. If drinks are craved, however, we have in thin oatmeal or Liebig's extract of meat, foods which enter the circulation so rapidly that their effect is comparable to that of alcohol. These, it is suggested, may be aërated and made endurable by various additions. Tea, and especially coffee, are also available and useful in these cases. For the reforming drunkard, bitter infusions may be of service in addition to the drinks already mentioned.

It seems possible that some advance may be made by temperance reformers through efforts in this direction, and since, as a rule, man is better without alcohol, they should have the help of the medical profession.

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THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

The recent meeting of the State Medical Society was the most successful and interesting one that has been held for many years. A large number of very valuable papers were read, and much important business was transacted. The address of the President was a model of its sort, and its wide dissemination, as recommended by the Society, will greatly aid the cause of State Medicine. It is, however, unnecessary to review the meeting in detail, and we only refer to it here, in a general way, to call the attention of our readers to the full report elsewhere.

# Reports of Societies.

## MEDICAL SOCIETY OF THE STATE OF NEW YORK.

*Seventy-Third Annual Meeting,*

HELD IN ALBANY, FEBRUARY 4TH, 5TH, AND 6TH, 1879.

TUESDAY, FEBRUARY 4TH.—FIRST DAY.—MORNING SESSION.

THE Society met, pursuant to adjournment, in the city of Albany, at 10 o'clock A.M., and was called to order by the President, DR. D. B. ST. JOHN ROOSA, of New York.

Prayer was offered by Rev. HORACE C. STRONG.

### INAUGURAL ADDRESS.

The President, in his opening address, directed attention to a few facts illustrative of the condition of the medical profession in the State of New York.

The number of colleges in affiliation with the Society were eight. Of those, *six* were exclusively attended by male students; *one* by women, and *one* by men and women. The whole number of students attending medical lectures in the State for the session of 1878–79, was 1,935. The number of graduates from the various colleges in the State, in the year 1878, was 526. There were nine medical journals published in the State. Thirteen new volumes on medical subjects, by American authors, had been published during the year, besides several new editions and many reprints of foreign books. The various county societies maintained their organizations, but, aside from cities and large towns, scientific work done in them was meagre. Besides the various county societies, there were thirty-eight other organizations for the purpose of discussing medical subjects. Reference was made to the publications of the Kings County Medical Society, and to the Medical Register of New York, New Jersey, and Connecticut, under the supervision of the New York Historical Society. The value of such a register could hardly be over-estimated. If the work could be carried on by this Society as it had been done by the private organization that had it in charge, it would become what it could not be considered now —an official guide to our profession.

The President suggested whether the Society might not take some action in that direction.

The functions of the Society were chiefly performed by its scientific work. Its legislative duties, fortunately, were few. Its alliance with the State was chiefly honorary.

The address was closed by appropriate reference to strengthening each other by the recital and discussion of professional experience, and the Society at once proceeded to the transaction of further business.

### ANNOUNCEMENT OF COMMITTEES.

The President then announced the following committees:

*For Business Committee*—Drs. J. C. Hutchison, J. W. S. Gouley, and J. V. Kendall.

*For Committee of Arrangements*—Drs. Wm. H. Bailey, F. C. Curtis, and the Secretary, Dr. Wm. Manlius Smith.

*For Committee on Credentials*—Drs. J. H. Hinton, W. S. Ely, and S. G. Wolcott.

*For Committee on Ethics*—Drs. W. C. Wey, E. M. Moore, and A. L. Saunders.

*For Member of Nominating Committee appointed by the President*—Dr. E. R. Squibb.

### COMMUNICATIONS FROM COUNTY SOCIETIES.

DR. DIMON, of Cayuga Co., presented a communication with reference to collecting the names of those members of the profession who had lost their lives in the pursuit of science or exposure to epidemics, and that such list be published in the transactions of the State Medical Society. Referred to Business Committee.

Communications were presented from Oneida Co. and Greene Co., which were referred to Committee on Publication.

DR. CASTLE, of New York, presented a communication from the Medical Society of the County of New York, with reference to certain instructions which the delegates from that county had received concerning amendments to the by-laws.

On motion made by Dr. Wyckoff, of Buffalo, the communication was referred to the Committee on By-Laws, with instructions to report upon the same at the next annual meeting.

### RESOLUTIONS.

DR. G. W. COOKE, of Otego, offered the customary resolution extending an invitation to the Governor and the members of the Legislature who were physicians, to be present and participate in the transactions of the Society. Carried.

DR. L. E. FELTON, of St. Lawrence, offered a resolution asking that the Legislature be petitioned to repeal all acts empowering boards of censors of the various county societies to issue certificates to practice medicine.

Referred to Committee on By-Laws, with instructions to report at the next annual meeting.

DR. CASTLE, of New York, offered the following resolution:

*Resolved*, That the Committee of Publication be requested to consider and report to the Society, at this meeting, the feasibility of a scheme for the publication of the transactions which would avoid the assessment of county societies for the expense of publishing the scientific papers included in the transactions. Carried.

### REPORT OF THE COMMITTEE ON CODIFICATION OF THE BY-LAWS.

DR. ALEX. HUTCHINS, of Brooklyn, submitted a complete report, which, on motion by Dr. Piffard, was referred to the Committee on By-Laws, to be reported upon next year. On motion, the committee was discharged.

*Inquiry into the legality of the resolution passed by the Medical Society of the State of New York, in* 1872, *requiring county medical societies to institute a preliminary examination of the qualifications of young men purposing to commence the study of medicine.* Instituted by the Society.

DR. HUTCHINS presented a report, according to the above instruction, which was referred to a special committee, consisting of Drs. Wey, Squibb, Hutchins, Vander Poel, and Kendall.

### ESTIMATION OF UREA.

DR. SQUIBB read a brief paper upon the above subject, the chief object of which was to correct an error which appeared in the paper of Dr. Maurice Perkins, published in the transactions for last year.

The decimal by which to multiply should be .00269 instead of .0269. [See Trans. for 1878, pp. 45-46].

REVISION OF THE UNITED STATES PHARMACOPŒIA IN 1880.

DR. SQUIBB read a communication upon that subject, and offered a resolution providing for the election of a committee of *three* to represent the Society in the convention which would meet in 1880. Believing it to be for the best interests of the Pharmacopœia, he made the special request that he should not be elected to serve upon the committee.

The resolution was adopted.

The paper and the communication were referred to the Committee on Publication.

CONTRACTED KIDNEY.

DR. W. S. ELY, of Rochester, read a paper upon the above subject, and reported two cases.

The *first* belonged to a class frequently seen, and the *second* was regarded as somewhat exceptional with reference to symptoms. In the first, seventy-one ounces of urine were passed in twenty-four hours, and had a specific gravity of 1012, a trace of albumen and a few casts.

In the second case the patient passed an average of 104 ounces of urine for twenty-three days, without the slightest evidence of albumen or casts, but with a low specific gravity. There was no visual disturbance, nor headache nor nausea nor vomiting. Special reference was made to the insidious nature of the affection, to the fact that albumen and casts might be absent from the urine for many days in succession, to the importance of measuring the urine passed during the entire twenty-four hours, and noting its specific gravity.

Dr. Ely also suggested that it was a question whether there was any such thing as diabetes insipidus without renal changes and without renal contraction. The paper was discussed by Dr. Vander Poel, of Albany, and referred to the Committee on Publication.

PRESIDENT'S ADDRESS.

Drs. A. Hutchins, F. A. Castle, and F. R. Sturgis, were appointed Committee on the President's Address.

FRACTURE OF THE FEMUR.

DR. NORMAN L. SNOW, of Albany, then read a paper in which was recorded the treatment of twenty-five cases of fracture of the femur occurring in private practice.

All were treated by extension and counter-extension. Plaster-of-Paris was sometimes employed *late* in the treatment of the case. Compound fractures justified the early use of the plaster-of-Paris bandage.

The paper was referred to the Committee on Publication.

MEDICAL EDUCATION.

DR. A. MERCER, of Syracuse, read a paper in which he discussed the relations of the medical student and the medical profession to the question of medical education.

It was discussed by Drs. Sturgis, Vander Poel, Castle, and Sherman, and then referred to the Committee on Publication.

The Chairman of the Committee of Arrangements introduced DR. CLARKSON F. COLLINS, a representative of the Massachusetts State Medical Society.

MEMBERS BY INVITATION.

DR. W. H. BAILEY also announced the following as members by invitation: Wallace Clark, of Utica; D. H. Clark, Lorenzo Hale, H. J. Fellows, E. B. Tefft, J. P. Boyd, Jr., and Geo. F. Stevens, of Albany; B. A. Mynderse, of Schenectady; C. W. Hamlin, of Middleville, Herkimer Co.; P. R. Furbeck, of Gloverville; A. P. Ten Eyck, of De Forrestville, Rensselaer Co.; and Wesley Newcomb, of Cornell University, Ithaca.

TUMOR OF THE CEREBELLUM.

DR. GEORGE T. STEVENS, of Albany, reported a case of tumor of the cerebellum, with remarks. The growth occupied about one-half of the fossa, and weighed one and a half ounces. It was composed of fibrous connective tissue containing groups of nucleated cells.

It was regarded as a neuroma of the auditory nerve.

DR. ROCKWELL, of Brooklyn, read a paper on

INTRA-CRANIAL TUMORS.

It consisted chiefly in the report of a case interesting in two particulars: 1. The extreme rapidity of development, twenty-seven days only elapsing after the appearance of first symptoms until development of phenomena, which made the case unmistakable; 2. The determination of the situation of the tumor by means of the surface-thermometer.

The paper was discussed by Dr. Thos. R. Pooley, of New York, and referred to Committee on Publication.

The Society then adjourned to meet at 3 P.M.

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FIRST DAY.—AFTERNOON SESSION.

The Society was called to order by the President at 3 P.M.

REPORT OF THE COMMITTEE ON BY-LAWS.

DR. WEY, Chairman of the Committee on By-Laws, reported that the Committee had approved of the By-Laws of the Medical Society of the County of Chemung, and also of the County of Otsego.

Unofficial reports had been received from the County of Saratoga, and also from the County of New York, but the Committee felt unwilling to approve of them.

The report was laid upon the table until the report should be received from the special committee asked for by Dr. Hutchins.

COMPENSATION OF MEDICAL EXPERTS.

DR. DIMON, of Cayuga, read the bill passed by the Senate at the last session of the Legislature, and referring to compensation of medical experts. The bill failed to pass the Assembly.

The Committee proposed to continue its efforts, and should endeavor to have the bill introduced in the lower house during the present session of the Legislature.

SECTIONS OF THE BRAIN.

DR. J. C. DALTON, of New York, exhibited specimens and described a method of showing sections of the brain in its fresh condition, with retention of color and normal relation of parts.

The brain was first imbedded in a strong solution of gelatine, enclosed in a brass frame-work. By means of a long, thin knife, sections were then made, and as soon as made transferred to another frame, imbedded in gelatine, and covered with a glass plate.

LUPUS.

DR. H. G. PIFFARD, of New York, read a paper upon the treatment of lupus.

It will be published in a future number of the RECORD.

### SYMPATHETIC GLAUCOMA.

Dr. D. Webster, of New York, read a paper upon the above subject, and reported two cases. Under ordinary circumstances we should have expected sympathetic iritis. It seemed to him, however, that in both cases the glaucoma was direct consequence of the injury received.

### A NEW AGENT IN THE TREATMENT OF GLAUCOMA.

Dr. Thos. R. Pooley, in a brief paper, gave the results of his experience in the use of *sulphate of eserin*, especially in the treatment of acute glaucoma. He had used it in four cases. Its great value consisted in the power it had to produce temporary improvement, by which the patient could be prepared for an operation.

Dr. H. D. Noyes, of New York, remarked in way of caution, with reference to expecting too much from the use of the remedy. In one case he had employed it without producing any benefit whatever; yet he regarded it as a valuable remedy for controlling this severe and important disease.

With reference to sympathetic glaucoma, we had not sufficient data to enable us to arrive at definite conclusions.

Dr. Knapp, of New York, referred to a case of glaucoma, in which a cure was effected by the use of eserin. The strength of the solution he used was one grain to three or four drachms of water, and employed three or four times a day.

The papers were referred to the Committee on Publication.

### PAPERS READ BY TITLE AND REFERRED TO THE COMMITTEE ON PUBLICATION.

On "Ovariotomy," by Dr. C. G. Pomeroy, of Wayne Co.

On the "Incubation of Scarlet Fever," by Dr. C. G. Bacon, of Fulton.

### THE RELATION OF THE MEDICAL PROFESSION TO THE ABUSE OF MEDICAL CHARITY.

Dr. F. R. Sturgis, of New York, read a paper upon the above subject, which was referred to a special committee, consisting of Drs. Jacobi, Castle, and Noyes, of New York, to be reported upon on Wednesday.

### BIOGRAPHICAL SKETCHES.

Biographical sketches of Dr. Albert Gallatin Purdy, by Dr. H. W. Carpenter, of Oneida, and Dr. Jehiel Stearns, of Pompey, by Dr. Kneeland, of Onondaga, were referred to the Committee on Publication.

Dr. H. P. Farnham offered the following resolution:

*Resolved*, That the Committee on By-Laws be requested to report concerning the revision of the by-laws of the Medical Society of the County of New York at this meeting, as otherwise said society would be without by-laws for this year. Carried.

### MEMBERS BY INVITATION.

Dr. Bailey reported the following as members by invitation: L. C. B. Graveline, Willis G. Tucker, John Thompson, Amos Fowler, Eugene Van Slyck, and John B. Stonehouse, of Albany; Clarkson C. Schuyler, of Troy; Herman Knapp, of New York City; and D. M. Wilcox, of Lee, Mass.

### COMMITTEE ON NOMINATIONS.

*For First Senatorial District*—Dr. J. H. Hinton, of New York; *For Second Senatorial District*—Dr. Wm. Govan, of Rockland Co.; *For Third Senatorial District*—Dr. C. A. Robertson, of Albany; *For Fourth Senatorial District*—Dr. Thompson Burton, of Montgomery Co.; *For Fifth Senatorial District*—Dr. H. N. Porter, of Oneida Co.; *For Sixth Senatorial District*—Dr. Joshua B. Graves, of Steuben Co.; *For Seventh Senatorial District*—Dr. Jonathan Kneeland, of Onondaga Co.; *For Eighth Senatorial District*—Dr. C. C. Wycoff, of Erie Co. Dr. E. R. Squibb, of Kings Co., appointed by the President.

### PERMANENT REMOVAL OF HAIR BY ELECTROLYSIS.

Dr. G. H. Fox, of New York, read a paper upon the above subject, and gave a description of the instruments used and the manner of performing the operation.

Dr. Piffard exhibited a compound microscope attached to a spectacle-frame, which could be used with advantage in the operation.

The paper will appear in a future number of the Record.

### BAPTISIA TINCTORIA IN THE TREATMENT OF TYPHOID FEVER.

Dr. Laurence Johnson, of New York, read a paper upon the above subject, and reported *seven* cases. It was believed to have a beneficial action upon the disease when administered in doses of the tincture varying in size from one to three drops every hour or two hours.

Dr. Squibb thought that physiological experiments should precede pathological experimentation before the value of any remedy in the treatment of disease could be satisfactorily determined.

Dr. Johnson remarked that the physiological action of the drug had been thoroughly studied by the homœopaths, but that he did not feel at liberty to introduce the results thus reported.

Dr. Jacobi was unwilling to accept the drug as one possessing any special efficacy in the treatment of typhoid fever until all measures commonly resorted to for reducing temperature were excluded, such as until the fact that the tendency of the disease was to moderate within the third week, was taken into consideration, and until we know something more of its physiological action.

The paper was further discussed by Drs. Kneeland and Piffard, and then referred to the Committee on Publication.

### LAPAROTOMY IN INTESTINAL OBSTRUCTION.

Dr. J. P. Crevling, of Cayuga, presented the statistical merits of this operation in two classes of cases: 1. Obstruction from intussusception; and, 2. Obstruction from all other causes. For information he had drawn largely upon a report made by Dr. H. R. Sands, of New York, and also from the writings of Dr. Ashurst, of Philadelphia, published in 1874.

His conclusions were as follows:

1. That abdominal section for the removal of intestinal obstruction was not only justifiable, but eminently proper, in cases of intussusception as soon as milder means had failed.

2. That the operation should be immediately performed, provided the conditions were at all formidable; but if symptoms of strangulation, peritonitis, hemorrhage, etc., had occurred, the operation was not warrantable.

3. When the obstruction occurred from intussusception, the operation should be performed at once.

4. That there was no real danger in the operation itself had been claimed by many.

CARBONIC ACID GAS AS AN ANTISEPTIC.

DR. E. M. MOORE, of Rochester, discussed Dr. Crevling's paper, and referred to the use of carbonic acid gas to *prevent the entrance of air into the abdominal cavity*, in any operation in which the cavity was opened.

The paper was then referred to the Committee on Publication.

PAPERS READ BY TITLE AND REFERRED.

On "Ovarian Tumors," by Dr. John Davidson, of Queens Co.

On "Thrombosis and Embolism," by Frederick Hyde, of Cortland Co.

DISLOCATION OF THE ACROMIAL EXTREMITY OF THE CLAVICLE DOWNWARD.

DR. WALTER B. CHASE, of Windham, reported a case of the above character. The patient was a boy *eight* years of age, who received a blow directly upon the top of the shoulder.

DR. MOORE, of Rochester, suggested that it was possibly a case of epiphysial fracture, which was more likely to occur at that age than dislocation.

The paper was then referred to the Committee on Publication.

DR. JOSHUA B. GRAVES, of Corning, reported a case of

INSTRUMENTAL DELIVERY.

The paper was referred to the Committee on Publication, and the Society adjourned to meet at 8 P.M.

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FIRST DAY—EVENING SESSION.

The Society was called to order at 8 P.M. by the President.

SCIENTIFIC GHOSTS.

DR. JOHN C. DALTON read a paper upon the above subject, in which he gave an interesting account of certain old theories, such as "the theory of organic molecules" [Buffon], and "the theory of inclusion" [Bonny]. It was a pleasing semi-scientific entertainment in the interval of more scientific communications.

ADDRESS ON OPHTHALMOLOGY.

DR. H. D. NOYES, of New York, gave a broad and graphic outline of the progress which had been made in ophthalmology during the past century, and illustrated his subject by means of the lantern and screen.

The Society then adjourned to meet on Wednesday morning, at 9.30 o'clock.

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WEDNESDAY, FEBRUARY 5TH—SECOND DAY—MORNING SESSION.

The Society was called to order at 9.30 A.M., by the President.

Prayer was offered by REV. J. HUMPSTONE.

The minutes of the sessions of the previous day were read and approved.

MEMBERS BY INVITATION.

DR. BAILEY, Chairman of Committee of Arrangements, reported the following as members by invitation:

Drs. S. B. Ward, C. S. Merrill, and W. J. Lewis, of Albany; Clinton Wagner, W. A. Hammond, and G. M. Beard, of New York; W. F. Bennett and D. R. Burrell, of Canandaigua; E. T. Rulison, Bath-on-the-Hudson; C Sawyer. Au Sable Forks, Essex Co.; B. Wilson, Wolcott, Wayne Co.; Wm. Bassett Fish, Lakeville, Conn.; L. H. Hills, Cooperstown; George C. Smith, Rondout; T. M. McLean, Elizabeth, N. J.; and A. S. Coe, Oswego.

TREASURER'S REPORT.

DR. CHARLES H. PORTER, of Albany, Treasurer, presented his report, which was referred to an auditing committee.

ABUSE OF MEDICAL CHARITY.

DR. JACOBI, Chairman of the Committee on the paper read by Dr. Sturgis yesterday, moved that the paper be referred to the county medical societies. The question was too important to be discussed in a short space of time. Carried.

DR. CASTLE, of New York, moved that the paper be printed and distributed to all the county medical societies as soon as practicable. Carried.

COLLATION AT THE DELAVAN HOUSE.

DR. BAILEY, in behalf of the Albany County Medical Society, extended an invitation to the State Medical Society to attend a collation at the Delavan House this evening, after the delivery of the President's Address.

RHINOPLASTY.

DR. A. C. POST, of New York, reported a case and exhibited photographs illustrating an operation of rhinoplasty for the correction of a deformity produced by the kick of a horse.

Referred to the Committee on Publication.

COMMITTEE TO COLLECT NAMES OF PHYSICIANS WHO HAVE LOST THEIR LIVES IN THE PURSUIT OF SCIENCE OR IN EPIDEMICS.

The President announced the following committee: Drs. Dimon, of Cayuga Co., H. D. Didama and Wm. Manlius Smith, of Onondaga Co.

PROPOSED LAW TO PREVENT THE ADULTERATION OF FOOD AND MEDICINES.

DR. E. R. SQUIBB made a report upon the above subject, which was referred to the Committee on Publication. The proposed law was printed in the New York daily papers.

PAPERS READ BY TITLE AND REFERRED TO COMMITTEE ON PUBLICATION.

"Personal Observations upon One Hundred Cases of Cancer," by Dr. Thomas E. Satterthwaite, of New York; "Report of a Case of Catalepsy," by Dr. B. S. Hovey, of Rochester; "Obituary Notice of Samuel Hart, M.D.," permanent member of the Society from Kings Co., by Dr. R. M. Wycoff, of Brooklyn.

DR. W. C. WEY, of Elmira, then reported

TWENTY-EIGHT CASES OF EFFUSION INTO THE PLEURAL CAVITY REQUIRING ASPIRATION.

DR. W. S. ELY, of Rochester, referred to the history of one of the cases reported by Dr. Wey, and described the method he employed for retaining the drainage-tube in position, which was employed to keep the pleural cavity free from accumulations of pus.

The rubber tube used for securing drainage was passed through an opening, in a rubber plate, slightly smaller than the size of the tube. Over this a thin rubber band was placed which went around the body and held the tube in position. It was connected to a bottle, which contained a solution of carbolic acid, by means of small rubber tube, and the bottle could stand upon the floor or be carried in the patient's pocket.

DR. JACOBI, of New York, discussed the paper and referred to the propriety of removing sections of ribs,

especially in adults, for the purpose, in empyema, of favoring sinking in of the walls of the chest and consequent closure of the cavity.

PAPERS READ BY TITLE AND REFERRED.

"Gangrene of the Leg produced by Embolism," by Dr. John Vedder, of Schenectady.

"Report on School Hygiene for the Town of Saugerties," by Dr. John Vedder. Referred to Committee on Hygiene.

"On Diabetes Mellitus," by Dr. N. C. Husted, of Tarrytown.

"Report of the Committee on Hygiene," by Dr. E. V. Stoddard, of Rochester.

ANATOMICAL RELATIONS OF ACUTE INFLAMMATION OF THE MIDDLE EAR.

Dr. J. S. Prout, of Brooklyn, read a brief paper upon the above subject, in which was set forth the importance of early paracentesis of the drum membrane for the relief of acute inflammation of the middle ear.

The paper was discussed by Drs. F. H. Hamilton, D. Webster, and H. D. Noyes, of New York.

INVITATION TO VISIT THE NEW CAPITOL.

An invitation was extended to the Society, by Mr. Palmer, to visit the New Capitol at 7.45 P.M., and listen to an explanation by Lieut.-Gov. Dorsheimer of two allegorical paintings in the Assembly Chamber.

Invitation accepted with thanks.

ON THE USE OF JABORANDI OR PILOCARPIN IN THE TREATMENT OF PUERPERAL CONVULSIONS.

Dr. Fordyce Barker, of New York, read a paper upon the above subject, which will be published in a future number of the Record.

The paper was referred to Committee on Publication.

NON-ASYLUM TREATMENT OF THE INSANE.

Dr. W. A. Hammond, of New York, read a paper upon the above subject, in which the position taken was that the medical profession in general was as well qualified to treat the insane as they could be treated in insane asylums. In many cases sequestration was not necessary, and in many others it was positively injurious.

The commencement of the trouble was usually recognized by the ordinary medical practitioner, showing his qualification at the most important stage of the disease. Asylums were not curative. For those who had comforts of home, and were not dangerous either to themselves or to others, asylums were not only not necessary, but were highly pernicious in their influence upon the patient.

The paper was discussed by Dr. G. M. Beard, of New York, who stated that he had found in practice that many patients in the early stage of insanity could be treated successfully at home, provided they had sensible friends. He was often called upon to decide whether or not to send cases to asylums or treat them at home, and had never repented of having decided to use home treatment. The subject had occupied his thoughts for some years. He cited several cases illustrating his position, but disclaimed all hostility to asylums. We needed asylums, and more of them. In regard to asylum or non-asylum treatment, each case of early insanity must be judged by itself, taking into account the nature and scope of the malady and whole environment of the patient.

The paper was referred to the Committee on Publication.

The Society then adjourned to meet at 8 P.M.

SECOND DAY.—AFTERNOON SESSION.

The Society was called to order at 3 P.M., by Dr. S. O. Vander Poel, of Albany.

ON THE TREATMENT OF HEMORRHAGE IN ABORTION.

Dr. W. T. Lusk, of New York, read a paper upon the above subject, which will appear in a future number of the Record.

The paper was discussed by Dr. Fordyce Barker, of New York, and Dr. R. H. Sabin, of West Troy.

Dr. Bailey introduced to the Society Dr. O. G. Seldon, delegate from the Wisconsin State Medical Society; also Dr. Abner M. Smith, of Pittsfield, delegate from the Massachusetts State Medical Society.

MEMBERS BY INVITATION.

Drs. S. A. Russell, P. J. Keegan, T. K. Perry, Harriet A. Woodward, O. D. Ball, of Albany; A. W. Shirland and R. H. Sabin, of West Troy; Wm. H. Hays, of West Albany; Wm. H. Robb and Jas. H. Scoon, of Amsterdam; E. E. Brown, of Lowville, Lewis Co., and G. D. Dunham, of Plattsburgh.

Dr. John P. Gray, of Utica, read a paper on

POINTS IN VENTILATION.

It was substantially a description of the fan plan in operation at the State Lunatic Asylum, and introduced there in 1853.

It was discussed by Drs. Moore, Bell, and Castle, and then referred to the Committee on Publication.

CATARACT EXTRACTION.

Dr. Herman Knapp, of New York, made a brief communication upon the above operation.

Reference was made to certain technical points in the operation, consisting in a modification of Graefe's method of opening the capsule. It consisted in a horizontal section through the periphery. The results in fifty-eight successive cases were given, and were encouraging for the modification.

Communication referred to Committee on Publication.

SUPRA-CONDYLOID AMPUTATION OF THE THIGH.

Dr. R. F. Weir, of New York, read a paper upon the above subject, which will appear in a future number of the Record.

The paper was discussed by Drs. A. C. Post and F. H. Hamilton, and referred to Committee on Publication.

READ BY TITLE AND REFERRED.

"Biographical Sketches of Dr. E. R. Peaslee, of New York, and Dr. A. M. Vedder, of Schenectady," by Dr. F. A. Castle, of New York.

"A Communication from the Medical Society of the County of Kings, on Hygiene," by Dr. F. H. Stuart, Chairman. Referred to Committee on Hygiene.

"Milk and Lime-Water as Food and Medicine in the Neuroses," by Dr. E. N. Chapman, of Kings Co.; "Phthisis Pulmonalis," by Dr. Jas. R. Leaming, of New York; and "Obituary Notice of H. B. Salmon, M.D., of Stuyvesant Falls," by Dr. P. V. S. Pruyn, of Kinderhook.

REMEDIAL AND FATAL EFFECTS OF CHLORATE OF POTASSA.

Dr. A. Jacobi, of New York, read a paper upon the above subject, which was referred to the Committee on Publication. It will be published in a future number of the Record.

It was discussed by Dr. French.

PRESENTATION OF SPECIMENS.

DR. FISHER, of Sing Sing, presented a specimen of *cystic osteo-sarcoma* affecting the upper portion of the tibia, and also a specimen of *chylous urine.*

METRIC SYSTEM.

DR. E. SEGUIN, of New York, made a report on the metric system. He urged the adoption, by the physicians of this State, of the International Metric System, because it was a standard of uniformity in all the sciences. Although its ultimate adoption was inevitable, by postponement in the adoption of this common standard we were cut short of what was truly new in modern medicine. England was ready to adopt it, and many of the eminent physicians and chemists in this country were also ready to adopt it, and its use had also been recommended by several representative medical societies in this country.

Discussion postponed until Thursday morning.

The Society then took a recess until 7.45 P.M.

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EVENING SESSION—ANNUAL ADDRESS BY THE PRESIDENT.

The Society met in the Assembly Chamber in the New Capitol, and was called to order at 7.45 by Dr. S. O. Vander Poel, of Albany.

Lieut.-Gov. Dorsheimer was then introduced, and in a pleasing address explained the two allegorical paintings.

THE PRESIDENT then delivered the annual address, having chosen for his subject,

THE RELATIONS OF THE MEDICAL PROFESSION TO THE STATE.

After a brief introduction, the subject was presented under six heads:

FIRST—AS WITNESSES TO AID IN THE DETECTION OF CRIME OR THE BREAKING UP OF NUISANCES.

It was probable that the singular contradictions of some our medical experts had excited the wonder of laymen and a sense of shame in medical men. All intelligent laymen knew that there must always be different shades of opinion upon the same subject in a science so unsettled and progressive as our own; but nobody yet knew why it was that experts could always be found who honestly believed that no antimony ever was in a certain stomach, when it had already been discovered by supposed reliable authority, or why one man was pronounced to be raving mad by Professor A., and competent to take charge of vast estates by Prof. B. The State should summon, the State should pay experts, and they should act as associate judges, to aid the real judges in getting the truth before the jury. The medical man should be placed in a position where he might be able to treat a medico-legal case as he would a dead body under his scalpel. The subject of the adequate payment of experts came under this head, and the belief was expressed that experts should not be taken away from their ordinary duties without a compensation that would, at least to some considerable extent, recompense them.

SECOND—AS DEFENDANTS IN SUITS FOR MALPRACTICE.

It was a matter of mortification that there should be any necessity for such a relation of the profession of medicine to the State as this. But physicians were, unfortunately, not exempt from the frailties and faults of humanity, and they must expect to answer at the bar of justice for any crimes they might commit. He frankly admitted, however, in the outset, that we ourselves were in a measure to blame for the tone of expression, about the work of physicians, which was somewhat prevalent among the people: "If Dr. —— had not done so and so," or, "If he had done so and so," in the common phrase, the patient would not have died. The idea of considering the result as largely due to personal and extraordinary gifts was the basis of the notion among the laity that the attending physician was to blame if an eye was lost, a fractured limb was shortened, or if a patient died from disease. One of the remedies for unjust attacks upon the faithfulness and skill of medical men must be found in such an elevated tone of professional sentiment as would prevent us from imitating the vilest of birds, that are said to foul their own nests.

THIRD—AS EDUCATORS OF THE PHYSICIANS OF THE FUTURE.

Although from the very early history of this country the community had taken an active interest in education, and even in special education—that of ministers, lawyers, and teachers—scarcely anything had been done for the instruction of medical students, except by the individual efforts of men who elected themselves to be professors in the medical colleges which they founded. All that the State had to do with those colleges was to prescribe that students in in them should study three years, that they should be twenty-one years of age when they graduated, at which time they should also be possessed of a good moral character. It was greatly to the credit of the medical colleges of this State that they had maintained medical teaching at a high standard, in spite of the indifference and the hostility which existed. Whatever might be said to the contrary, any exact examination would show that the medical teachers of the State had always been foremost in the efforts to extend sound knowledge. Apt as was the medical press to decry medical professors, it might be safely asserted that the temptations of their irresponsible position had not overcome them, but they were among the chief promoters of scientific culture. Admitting all that, there were so many evils in the present system that a change was imperatively demanded. We needed an examination for admission, a graded and fuller course, and a more rigorous final examination. He thought that, if we turned our eyes to the State of Massachusetts, we should find there the only certain measures of reforming our medical colleges. He held that the State could not undertake the work. The State, as such, however much we might ask of its individual members, should not be expected to assist, even much less, to endow medical colleges. The profession itself should secure those endowments. If educated laymen did not know that a real university should have a medical school as a part of it, we must teach them all that; then they would endow our schools. Here was the kernel of the whole matter of reform in medical education. The present necessary laxity in admissions and in final examinations fairly overwhelmed the land with physicians. But how should the heavily burdened community find means for the new call upon its benevolence? By sparing from its useless expenditures that which was here so much needed. Under this head the question of legalizing the dissection of unclaimed dead bodies was considered.

FOURTH—AS MANAGERS OF INSTITUTIONS FOR THE CARE OF THE SICK AND INJURED.

There was a widely diffused belief among business men and lawyers that physicians and clergymen had

very little of the ordinary tact necessary for the financial care of large interests. Distrust of the business and executive capacity of medical men, mingled with a notion that they were contentious, were the real reasons for the almost universal exclusion of medical men from the governing boards of hospitals and dispensaries. Put physicians in fair proportion on the boards of erection and management of hospitals, and the present condition of these institutions would soon be changed, and the system would be inaugurated in civil hospitals that had given to the medical officers of the United States army a wide and enduring fame.

FIFTH — AS PROTECTORS OF THE COMMUNITY FROM QUACKERY.

While we might not ask the State to endow medical schools, we might certainly expect that it would protect its citizens from well-defined quackery. The State could not catalogue the drugs that might be used, nor name the doses, but it could see to it that no one was allowed to prescribe for disease who had not furnished evidence of a satisfactory knowledge of anatomy, physiology, and chemistry. It should also interfere to prevent the sale of so-called patent medicines and of adulterated medicines and food. A State that would not do that, should, in all consistency, allow mad dogs to run in the streets, lunatics to go at large, and gunpowder to be stored in every house, and leave its railroad crossings without guards or signals. What was wanted was a board of examiners made up of the best men from the colleges and the profession, who should determine—not the orthodoxy of a candidate as to the doses of drugs or the uses of cold water and vegetable medicines, but as to whether he had been well grounded in the structure and functions of the human body, the remedies for poisons, the rules for action in emergencies, and the principles of diagnosis, a knowledge of which would, at least, protect his patients from scandalous malpractice.

SIXTH — AS SANITARY ADVISERS TO THE COMMONWEALTH.

That was perhaps the most comprehensive and important of any of our relations to the State. There were, however, still many obstacles, on the part of the powers that were, in the way of yielding to physicians as a class, even in matters purely sanitary. Physicians were still very largely regarded as fit only for the necessary but narrow walk of their calling—in prescribing for disease that had already broken out, and for taking charge of accidents that had already occurred. *Preventive* medicince, which we were most anxious about, was not yet fully appreciated by our lawmakers. The physician should have the same prerogative in the State as in the family. There should be a board of health in every county and in every town, and that board should have no man upon it who had not a medical, scientific, or legal education. Not a schoolhouse, not a jail, not a hospital, not a sewer should be built unless competent sanitary advice, with power to enforce it, was given. There was also room for reform in the supervision of the hygienic condition of prisons, public charities, private and public insane asylums. There was also room for reform and work for the closing years of the nineteenth century in submitting to the tests for the perception of colors every railway and steamship official. We should follow the example of Sweden, and demand such a searching investigation as would put in other positions men whose visual defects now rendered them useless and dangerous in places where colored signals were used.

What could be done in the way of preventive medicine was perhaps nowhere better shown than in the exemption of the city of New York from cholera and yellow fever. Reference was then made to the recent epidemics of yellow fever at the South, and also to the necessity of placing medical men on the boards which had charge of our public schools.

Two things must be earnestly seen by us, if we would hasten the day when the medical profession should assume its true relations to the State. They were unity of action and a jealous regard for our reputation as a profession. With united front let us, who struggled for the prolongation of life and the mitigation of disease, continue our advance in the same column with those who, by cultivating the soil, by humane and wise legislation, and the administration of law, by the finding out of many inventions, by the inculcation of the principles of morality and religion, contended for the land and a time when "the wilderness and the solitary place should be glad for them, and the desert should rejoice and blossom as the rose," and the Eternal God should wipe all tears from the faces of men.

The address was listened to with untiring attention, and received marked demonstrations of approbation.

The Society then adjourned to meet on Thursday at 9.30 A.M.

COLLATION AT THE DELAVAN HOUSE.

After the President's address, the members of the Society and invited guests were handsomely entertained at the Delavan House, by the Medical Society of the County of Albany.

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THURSDAY, FEBRUARY 6TH.—THIRD DAY.—CLOSING SESSION.

The Society was called to order at 9.30 A.M., by the President, and prayer was offered by DR. ALFRED C. POST, of New York.

On motion, the reading of the minutes was dispensed with.

DR. BAILEY, Chairman of the Committee of Arrangements, introduced DR. O. A. HORR, delegate from the Medical Society of the State of Maine, and announced the following

MEMBERS BY INVITATION.

Drs. H. R. Starkweather, Franklin Townsend, Jr., G. W. Papen, and William Morgan, of Albany, and Jas. D. Featherstonhaugh, of Cohoes.

DR. CASTLE, Chairman of the Committee on the President's Address, reported that the Society was not competent to take any action with reference to the Medical Register alluded to, and that the expense of social entertainments during the session be left in the hands of the Committee of Arrangements.

The report was adopted.

BY-LAWS OF THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

DR. WEY, Chairman of Committee on By-Laws, reported favorably on the revised by-laws of the Medical Society of the County of New York.

The report was accepted and adopted.

The report, laid upon the table yesterday, was, on motion made by Dr. Wey, taken up, amended, and adopted.

DR. KENDALL, of Onondaga, made a report as

DELEGATE TO THE MEDICAL SOCIETY OF THE STATE OF MAINE,

which was referred to the Committee on Publication.

PUBLICATION OF TRANSACTIONS.

DR. SMITH, the Secretary, made a report from the Committee on Publication, with reference to the resolution introduced by Dr. Castle on Tuesday.

The committee recommended that no change be made in the present regulations concerning the publication of the transactions of the Society.

DR. PIFFARD, of New York, moved that the report be adopted. He made the motion for the purpose of bringing the question before the Society, but should vote against its passage for the reason that the New York delegates had received instructions to oppose its adoption.

The question was discussed by Drs. Piffard, Wey, and Castle. The report of the Committee was adopted by a rising vote—ayes, 48; nays, 19.

METRIC SYSTEM.

DR. F. A. CASTLE, of New York, introduced a resolution asking the State Medical Society to request all who might present papers at future meetings of the Society, to employ the metric system in their writings, and that the metric system should be exclusively used in the published proceedings of the Society. Adopted.

PRESIDENT'S ADDRESS.

DR. A. N. BELL, of Brooklyn, moved that 5,000 copies of the President's Address be printed and distributed to the physicians in the State, the members of the Legislature, and the members of the State Government. He urged it as a measure to benefit public sanitation. Adopted.

SUPPRESSED MINUTES.

DR. PIFFARD moved that the Committee on Publication be directed to include in the next volume of the Transactions the suppressed minutes of the meeting held Feb. 1, 1876.

DR. WEY remarked that he was not competent to vote upon the motion, and asked for a brief explanation.

DR. PIFFARD explained by saying that a meeting was held Feb. 1, 1876, and that the minutes of that meeting had not been published. The object of his motion was to secure their publication.

THE SECRETARY said he knew of no minutes of such a meeting, except that some twenty-two names were registered as having attended it. He supposed the meeting was held, if held, to make sure that there was no illegality concerning subsequent stated meetings.

DR. WEY moved that the matter be referred to the Committee on Publication, with power.

DR. FRAZIER, of Oneida Co., remarked that it was most singular that these queer questions should arise for action by the country members. First, a resolution was offered that no transactions at all be published; in a few moments a resolution was offered relating to their publication; at one moment there were journals sufficient for all purposes, and at the next moment our transactions were vastly important, and the next moment they were good for nothing, and he moved to lay the whole subject on the table. Carried.

DR. CASTLE moved that an adjourned annual meeting be held in the city of New York in October, at which no business should be transacted except the reading and discussion of scientific papers.

DR. KENDALL moved to lay the subject upon the table. Carried.

AUDITING COMMITTEE.

The President appointed Drs. Piffard, N. C. Husted, and E. C. Lyman, as a committee to audit the Treasurer's Report.

SURGICAL USES OF THE ACTUAL CAUTERY.

DR. A. C. POST, of New York, read a paper upon the above subject, which will appear in a subsequent number of the RECORD.

DR. HUSTED, of the Auditing Committee, reported that the account of the Treasurer had been examined, found correct, and was approved by the Committee.

The report was accepted and adopted.

CAVERNOUS ANGIOMA OF THE TONGUE.

DR. E. R. HUN, of Albany, presented a paper upon the above subject, which was read by title, and referred to the Committee on Publication. He also presented the patient and the portion of tongue removed. It was removed by means of the écraseur, twenty-seven minutes being consumed in the operation. Speech and ability to eat were restored.

WRITER'S CRAMP.

DR. G. M. BEARD, of New York, gave the conclusions from an analysis of one hundred cases of writer's cramp and allied affections.

The conclusions will be published in a future number of the RECORD.

THE INFLUENCE OF THE OPTICAL CONDITION OF THE EYE UPON THE DEVELOPMENT OF CHARACTER.

DR. E. G. LORING, of New York, read a valuable paper upon the above subject, in which he urged the importance of correcting optical defects, such as near-sightedness, long-sightedness, and astigmatism, *before* the education of the child was commenced. The conclusion reached by him was that the eyes of every child should be carefully examined before entering *any* school, and that the Legislature should pass a law compelling an examination of the eyes before the child was permitted to enter our public schools. The paper was referred to the Committee on Publication.

ON THE ADIRONDACK REGION IN THE TREATMENT OF PULMONARY PHTHISIS.

DR. ALFRED L. LOOMIS, of New York, read a paper upon the above subject, which will be published in a future number of the RECORD.

ELIGIBILITY TO PERMANENT MEMBERSHIP.

THE SECRETARY remarked that it had been the custom when a person, eligible to permanent membership, removed from one district to another, to transfer his name to the list of those eligible to permanent membership from the district to which he removed. He asked for an opinion from the Society with reference to the correctness of the procedure. The Society endorsed the custom.

SALARIES OF THE SECRETARY AND THE TREASURER.

DR. SQUIBB offered a resolution providing for an increase of the salary of the Secretary to $350, and that the Treasurer be allowed $100. Adopted.

REPORT OF COMMITTEE ON NOMINATIONS.

DR. C. A. ROBERTSON, of Albany, read the following report:

*For President*—Dr. Henry D. Didama, of Syracuse, Onondaga County.

*For Vice-President*—Dr. Nathaniel C. Husted, of New York.

*For Secretary*—Dr. Wm. Manlius Smith, of Manlius, Onondaga County.

*For Treasurer*—Dr. Chas. H. Porter, of Albany.

*For Censors—Southern District:* J. W. S. Gouley, of New York; George J. Fisher, of Sing Sing; and Edward H. Parker, of Poughkeepsie. *Eastern Dis-*

*trict:* John P. Sharer, of Little Falls; Norman B. Snow, of Albany; and E. D. Ferguson, of Troy. *Middle District:* M. M. Bagg, of Utica; Geo. W. Cooke, of Otego; and Chas. G. Bacon, of Fulton. *Western District:* C. C. Wycoff, of Buffalo; Harvey Jewett, of Canandaigua; and E. V. Stoddard, of Rochester.

*Committee on Correspondence—First District*, T. A. Emmet, of New York; *Second District*, D. Guernsey, of Amenia; *Third District*, R. H. Ward, of Troy; *Fourth District*, T. B. Reynolds, of Saratoga; *Fifth District*, S. G. Wolcott, of Utica; *Sixth District*, J. G. Orton, of Binghamton; *Seventh District*, H. B. Wilbur, of Syracuse; *Eighth District*, C. E. Rider, of Rochester.

*Committee on Prize Essays*—W. W. Ely and E. M. Moore, of Rochester; and T. F. Rochester, of Buffalo.

*Committee on By-Laws*—Wm. C. Wey, of Elmira; Wm. Manlius Smith, of Manlius; and Wm. H. Bailey, of Albany.

*Committee on Publication*—J. P. Dunlap and Alfred Mercer, of Syracuse; Wm. Manlius Smith, of Manlius; and Chas. H. Porter, of Albany.

*Committee on Hygiene*—E. V. Stoddard, of Rochester; J. G. Orton, of Binghamton; D. Guernsey, of Amenia; C. R. Agnew, of New York; M. H. Burton, of Troy; E. Hutchinson, of Utica; and Harvey Jewett, of Canandaigua.

*Permanent Members—First District:* Horace P. Farnham and Wm. T. White, of New York; Arthur Matthewson and J. S. Prout, of Brooklyn. *Second District:* John Davidson, of Hempstead, Queens County, and Geo. C. Smith, of Rondout, Ulster County. *Third District:* B. A. Mynderse, of Schenectady, and Walter B. Chase, of Windham, Greene County. *Fourth District:* Asa W. Tupper, of North Granville, Washington County, and Z. B. Bridges, of Ogdensburgh. *Fifth District:* A. S. Coe, of Oswego, and J. Mortimer Crawe, of Watertown. *Sixth District:* C. H. Stiles, of Owego, Tioga County, and M. L. Bennett, of Watkins, Schuyler County. *Seventh District:* Theodore Dimon, of Auburn. *Eighth District:* William Ring and John Cronyn, of Buffalo.

*Honorary Members*—L. Auguste Mercier, of Paris, France; Christopher Heath, F.R.C.S., of London, England; Henry J. Bowditch, of Boston, Mass.; and Greenville Dowell, of Galveston, Texas.

*Eligible to Honorary Membership*—W. S. Teevan, F.R.C.S., of London, England, and Gen. Joseph B. Brown, U. S. Army, North Tarrytown.

DELEGATES

*To the Medical Society of the State of Pennsylvania*—Joshua B. Graves, of Corning.

*To the Massachusetts Medical Society*—J. L. Banks and H. P. Farnham, of New York, and P. R. H. Sawyer, of Bedford, Westchester Co.

*To the Connecticut Medical Society*—A. T. Douglass, of Rondout, H. D. Noyes, of New York, and J. C. Hutchison, of Brooklyn.

*To the Medical Society of New Jersey*—N. C. Husted and Robert Newman, of New York; William Govan, of Stony Point, and J. C. Hutchinson, of Brooklyn.

*To the Vermont State Medical Society*—A. J. Long, of Whitehall, Washington Co.; W. W. Porter, of Syracuse, Onondaga Co., and L. Barton, of Williamsborough, Essex Co.

*To the Rhode Island Medical Society*—James C. Hutchinson, of Troy.

*To the Missouri State Medical Society*—J. R. Boulware, of Albany.

*To the Illinois and Iowa State Medical Societies*—J. Knecland, of Onondaga.

*To the Medical Society of the State of Ohio*—Thos. R. Pooley, of New York.

*Censor for the College of Medicine of Syracuse University*—Jas. S. Bailey, of Albany.

*Delegates to the American Medical Association*—H. R. Ainsworth, Addison; S. G. Wolcott, Utica; C. C. Wycoff and Thos. F. Rochester, of Buffalo; J. M. Minor, J. H. Hinton, and J. W. S. Gouley, of New York; J. C. Hutchison, of Brooklyn; D. B. St. John Roosa, of New York; Albert Van Derveer and Chas. A. Robertson, of Albany; Stephen Smith and F. H. Hamilton, of New York; John P. Gray, of Utica; A. C. Post and H. D. Noyes, of New York; Wm. C. Wey, of Elmira; Frederick Hyde, of Cortland; E. H. Parker, of Poughkeepsie; Theodore Dimon, of Auburn; E. M. Moore and W. S. Ely, of Rochester; P. R. H. Sawyer, of Westchester Co.; H. D. Didama, of Syracuse; Thos. M. Johnson, of Buffalo.

Before the reading of the report, Dr. Squibb remarked that the Committee believed it to be proper to drop the Committee on Pharmacology, allowing it to be replaced by the delegation to the Convention for Revising the U. S. Pharmacopœia, in 1880.

It was also the opinion of the committee that a delegation consisting of twenty-five, instead of thirty-seven members, was sufficent to represent the Society in the American Medical Association.

The report was accepted and unanimously adopted.

REPORT FROM THE COMMITTEE ON BY-LAWS—ILLEGALITY OF A BY-LAW ENACTED IN 1872.

Dr. Wey, Chairman of the Committee on By-Laws, reported with reference to the legality of a by-law enacted in 1872, concerning medical students, that, after consulting two of the judges of the Court of Appeals, the conclusion was reached that the by-law was *illegal*, and that neither State nor county societies were empowered to take such action as indicated in the by-law enacted.

The report was adopted.

On motion, the illegal by-law was rescinded by the Society.

TRAUMATIC ORIGIN OF SUBFASCIAL, DEEP-SEATED, OR COLD ABSCESS, COMMONLY CALLED CONSTITUTIONAL OR SCROFULOUS ABSCESS.

Dr. Lewis A. Sayre, of New York, read a paper upon the above subject, which will appear in a future number of the Record.

It was briefly discussed by Drs. E. M. Moore, of Rochester, and A. L. Loomis, of New York, and referred to the Committee on Publication.

WARM WATER IN THE TREATMENT OF TRAUMATIC GANGRENE.

Dr. F. H. Hamilton, of New York, related his latest experience in the use of hot water in the treatment of traumatic gangrene. It was favorable to the agent employed.

Dr. E. M. Moore, of Rochester, regarded the plan of treatment brought forward by Dr. Hamilton as one of the greatest advances in surgery.

PAPERS READ BY TITLE AND REFERRED TO THE COMMITTEE ON PUBLICATION.

"Eserin and Pilocarpin in Ophthalmic Therapeutics," by C. S. Bull, M.D., of New York.

"On the Use of Water in the Treatment of Diseases of the Skin," by L. D. Bulkley, M.D., of New York.

"Report of Delegate to the Medical Society of the

State of New Jersey," by H. S. Grandall, M.D., of Madison Co.

"On the Value of Carbolized Animal Ligature Applied Antiseptically in the Treatment of Aneurism," by Stephen Smith, M.D., of New York.

"Obituary Notice of Joseph Northrup, M.D., of Albany," by F. C. Curtis, M.D., delegate from the Albany County Medical Society.

"Ulcerative Phthisical Laryngitis: Value of Tracheotomy in its Treatment," by Beverley Robinson, M.D., of New York.

"Report of Nine Cases of Uterine Fibroids, with Remarks," by A. Van Derveer, M.D., of Albany.

"Causes of Death during Surgical Operations," by A. L. Ranney, M.D., of New York.

On motion, made by Dr. Hutchison, of Brooklyn, the thanks of the Society were unanimously tendered to the Capitol Commissioners for the use of the old Assembly Chamber during the meeting, and for the use of the new Assembly Chamber on Wednesday evening.

The President thanked the Society for the uniform courtesy extended to him by the Society, and declared the Society adjourned to meet in Albany on the first Tuesday in February, 1880.

# Correspondence.

## THE PUBLIC HEALTH ASSOCIATION AND NATIONAL ACADEMY OF SCIENCES.

To the Editor of The Medical Record.

Sir:—In your issue of the 1st inst., there are some editorial remarks regarding the Withers bill, which is supposed to embody the views of the American Public Health Association as to what the National Health Commission should be, which are capable of conveying impressions that are not the facts of the case.

It is stated, in referring to the memorandum furnished by the Public Health Association, as follows: "It is further urged, in the memorandum of the Health Association referred to, that the selection of a committee for this purpose is of the greatest importance, and that consequently it should be left to the members of the National Academy of Sciences. Probably as an improvement on this suggestion, the said Academy was designated in the bill as the proper body to take the matter in hand. We cannot believe that the Public Health Association is willing to father the bill as it now stands—to leave sanitary matters to a body of gentlemen who have never given any attention to the subject, and whose studies are confined to astronomy, geology, entomology, and kindred subjects."

The very solicitude which was felt by the Association that the appointment of the sanitarians to compose the National Health Commission should not be influenced by "political or local" considerations, caused the Public Health Association to adopt this mode of selecting the men.

The language used in the memorandum prepared for general information is as follows: . . . "After careful consideration of various plans proposed to secure this end, which is felt by all to be vitally necessary to success, we are of opinion that the simplest and surest method, and one which will command the most general approval among the scientific and professional men of the country, is that Congress should request the National Academy of Sciences to designate the members of the Commission."

There are, it seems, legal or constitutional reasons why Congress cannot, in its prescribed powers, be aided by the wisdom of the National Academy in its knowledge of men, so as to designate those whose acknowledged ability would meet universal approval. In section six of the memorandum, which suggests this manner of appointing the Commission, this difficulty is referred to.

The Public Health Association could not properly mention any of their own number as those who should be appointed members of the Commission, although there are many without doubt richly qualified, and sought the aid, through Congress, of the National Academy, so that the President of the United States might be furnished with a list of names of men who are distinguished by their labors, of ability and success in sanitary science, and from this list the members of the Commission should be chosen.

If the President cannot be advised by the National Academy regarding the appointment of persons to positions, the duties of which, to be properly discharged, require that those holding them shall have special scientific qualifications, from what unprejudiced source shall he receive this information?

Sanitary science will probably never be absolutely separated from that of medicine; yet it is no less true that the investigation of causes of disease, is, at the present moment, within the field of labor of those gentlemen composing the National Academy.

Perhaps we will not disagree in the opinion that were the whole matter of sanitary supervision of the United States turned over to the National Academy, its success would suffer less violence than were the selection of the Commission entrusted to purely political managers. I have no doubt, should any law be passed delegating these matters to the Academy, the gentlemen composing that corporate body would act with becoming wisdom. Professor Simon Newcomb, for instance, would not attempt to investigate the causes of yellow fever or diphtheritis from the Observatory in Washington, by observations through his large telescope!

Trusting that I have shown that the sole object that the Public Health Association had in view was to secure men highly qualified for the duties required of them,

I am, very respectfully,

B. F. Gibbs,

*Medical Inspector U. S. Navy, and Member Advisory Committee Public Health Association.*

Washington, D. C., Feb. 5, 1879.

[So far as the facts of the case are concerned, we agree perfectly with our esteemed correspondent. We certainly meant what we said in the paragraph quoted, and we fail to see how we could convey an erroneous impression. The Public Health Association did ask that the National Academy of Sciences should name the members of the Commission, and it is not disproved that the Withers bill leaves the whole matter virtually in the hands of the aforesaid Academy. It is well enough for the Association to place the appointments beyond the reach of politics; but with due deference to the arguments of Dr. Gibbs, we still object to the course suggested. We are so confident that it will not meet with "the most general approval among the scientific and professional men of the country," that we are willing to risk a reiteration of our protest.—Ed.]

## PROF. STILLÉ AND ACUTE ARTICULAR RHEUMATISM.

To the Editor of The Medical Record.

Dear Sir:—In the lecture on "Acute Articular Rheumatism," by Prof. Stillé (Medical Record, Jan. 18, page 50), he says: "I desire to lay great stress upon the statement that the treatment of simple acute articular rheumatism may be abandoned to palliatives and nature." "No treatment was ever invented which stopped a case of acute articular rheumatism."

In a practice of fifteen years, three of which were in the army, I have had some experience in this disease. I have had the pleasure of listening to a course of lectures by Dr. Austin Flint, and have heard him make the statement quoted, and I must say that my experience leads me to differ from both these gentlemen. Were I suffering from the disease as I have have seen others suffer, I should hardly be content to be left to palliatives and nature, fully persuaded as I am by abundant testimony in The Medical Record and other journals, as well as some experience of my own, that we have in salicylic acid and its salts a remedy which will frequently, to say the least, cut short the attack, and that speedily.

I started out with the notion, Dr. Watson's, I think: "Rheumatism, well treated, runs seven weeks; not treated at all, it runs forty-nine days." I now think that such teaching is erroneous and mischievous. I believe that the physician is culpable who does not cure the majority of cases of simple acute rheumatism in less than two weeks, and who does not cure many in less than one week; and I believe that under the administration of salicylic acid there will generally be decided and permanent improvement in two days.

In subacute cases, especially in a malarial climate, salicin is very efficient.

Cases.—L. H., mulatto, aged 25, had been at Union Depot, St. Louis, about a month washing floors and windows; seized with acute rheumatism Jan. 25th. I saw him the 28th, in the evening. He was on his back in bed; right knee much swollen, and so painful that he had not been able to get any rest night or day. On my approaching him he was very fearful lest I should touch it. He had not slept the night before, and said he was getting worse and worse; begged me to give him something to relieve the pain and make him sleep. I gave him a dozen ten-grain powders of salicylate of soda, with directions to take one every two hours till he was better; then every four hours.

Jan. 29.—Better; can move knee; slept well the night before; felt better after taking the second powder; had taken eight powders; was now taking them every four hours.

Jan 31.—Wants to get up; says he can walk as well as I can; says the powders acted like magic.

And yet "No treatment was ever invented which stopped a case of acute articular rheumatism."

May 28, 1877.—Mrs. H., aged 35; acute rheumatism; high fever, great pain and swelling in arms and legs, shoulder and knee. As in the other case, pain so great as to prevent sleep. Ordered salicylic acid, twenty grains every two hours, with enough bicarbonate of soda to render it soluble in water, till better, then three times a day. Called again May 30th, and found her in the act of springing into bed as I approached her room. She slept well the first night after taking the medicine. From imprudence she had a slight return, but the same treatment promptly relieved her.

In one case, a severe one, of a young farmer, I thought I did well to get him out of his bed and able to work in three weeks, under the use of the alkaline treatment with electricity.

In no case have I seen even slightly bad effects from salicylic acid, although, in one case, I administered nearly an ounce in less than four days. Its action is prompt in relieving the pain and reducing the fever. In no case, when using it, have I found external applications necessary.

B. J. Bristol.

Webster Groves, St. Louis Co., Mo.

## SNAKE IN THE EYE OF A HORSE.

To the Editor of The Medical Record.

Dear Sir:—Doctor Charles J. Kipp, of Newark, N. J., has given in a recent number of The Medical Record a very interesting account of "A Filaria in the Eye of a Horse," as seen by him and operated for a year ago in said city. It recalls to my recollection a similar account read by me a long time previously, in the Transactions of the American Philosophical Society, Vol. II., published in Philadelphia, 1786. The account was contained in a monograph entitled "Of a Living Snake in a Living Horse's Eye, and of Other unusual Productions of Animals," read before the Society June 5, 1782, by John Morgan, M.D., F.R.S. London, Professor of the Theory and Practice of Physic, Philadelphia. The author, after some extended remarks upon the subject of equivocal generation, apologizes for the interest he took in the phenomena he was describing; professes his want of credulity and his little liability to be humbugged, and insists that he could not be deceived as to the reality of the object he describes. He claims that "from the closest ocular examination, with unwearied attention, repeated more than once, he conceives he is not mistaken in asserting that there is a real snake in the eye, which, from the vivacity and briskness of its motion, exceeds that of any worm, and equals that of any kind of serpent he has ever seen." The horse alluded to was on exhibition in Philadelphia in Arch street, between Sixth and Seventh streets, as a great curiosity, and was advertised in the Pennsylvania Gazette, May 23 (1782), and is described by Dr. Morgan as follows:

"The horse in whose left eye this extraordinary *lusus naturæ* is visible, is of a sorrel color, nine years old; it belonged to Dr. Dayton, near the lines at Elizabethtown, and, I am told, appeared to have no uncommon appearance in either eye till within a few months ago. The first particular circumstance which excited the owner's attention was, that having lent him to a friend to take a ride in a chair, although it was not known to be vicious or unruly before, it could not now be kept under any government, but ran away with, and dashed the chair to pieces. The right eye still continues in a sound state. Soon after, viz., about ten weeks ago, Mr. Richard Wells, merchant, of this city, a gentleman of probity and of great philosophic knowledge, being at Elizabethtown in company with Dr. Dayton, this gentleman told him he would show him a curiosity as great, perhaps, as he had ever seen, namely, a living snake in a living horse's eye. Mr. Wells then desiring to see it, upon looking into the eye, discovered the animal very plainly, in a constant serpentine motion, but necessarily in a somewhat convoluted form, as its length was equal, as nearly as he could judge, to two diameters and a half of the eye, which could not measure less than between three and four inches. The head and tail, or, if you please, the two extremities of the animal, were then visible, and the horse's eye still retained its transparency enough to

admit seeing the whole of the snake distinctly. The horse was soon after purchased by a free negro to bring to Philadelphia for show. At present, apparently, from the brisk and almost constant motion of the animal, which is somewhat increased in length since the inspection at Elizabethtown, and which is as thick as a knitting-needle or piece of common twine, as nearly as can be determined through the intervening medium, the aqueous and vitreous humors of the eye are confounded (the fine cellular texture of the latter being broke down), and tinged with the softest part of the crystalline, so as to assume somewhat of a white milky appearance, bordering on the color of a cataract. The iris appears to be greatly dilated, or rather wholly destroyed. For the septum or partition which separates the anterior from the posterior chambers in a sound eye, must be broken down, as the animal, or, to speak like a sceptic, the animal appearance of a snake is continually receding into the fundus and back part, and by times coming forward into the anterior part of the eye, with a convoluted brisk motion. I cannot think a snake of the same size, moving briskly in a tumblerful of fair water, or of water discolored with a teaspoonful of milk, would be more visible; but the coats of the eye and humors have now somewhat of a milky appearance, or color of an incipient cataract."

He concludes the horse is blind in the affected eye —the lids of it being closed, and only opened on striking the horse smartly on the back with the open hand. The medical faculty were nonplussed by the phenomena, and at a loss to account for the appearance on common principles or from known diseases. The great question with them was, if it were a real snake or living animal, how did it get into the horse's eye?

Thinking that from the rarity of the phenomena as described by Dr. Kipp, and that Dr. Morgan's case was doubtless the first observed in this country, it might prove of sufficient interest, I transcribe it for the columns of THE MEDICAL RECORD.

R. S. SWORDS.

NEWARK, N. J., 3d February, 1879.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 26 to February 8, 1879.*

SEMIG, B. G., 1st Lieut. and Asst.-Surgeon. Assigned to duty at Fort Johnston, N. C. S. O. 18, Dept. of the South, Jan. 28, 1879.

OLEAGINOUS SOLUTIONS OF CHLORAL.—Chloral hydrate is soluble in two parts oil, says M. Chatillon (*Gaz. Hebdom.*). He recommends: ℞. Chlorali, part. vj.; ol. amygdal., part. xxx. M. Or ℞. Chlorali, part. vj.; ceræ, part. iij.; adipis, part. xxvij. M. And ℞. Chlorali, part. j.; ceræ alb., part. ij.; ol. theobrom., part. ijss. M. Ft. suppositoria.

NEW YORK ACADEMY OF MEDICINE.—The credit should be given to a *member of the medical profession* and not simply to a private citizen, for the donation of $5,000, noticed in the last number of the RECORD (see p. 186).

IN the case reported by Dr. Barker (see p. 140) the sentence, "The woman became pregnant and went to the full term of utero-gestation twice," should be omitted.

# Obituary.

## JACOB BIGELOW, M.D., LL.D.

JACOB BIGELOW, M.D., LL.D., distinguished as a practitioner, teacher, and writer since the commencement of this century, died in Boston, Mass., on January 10th, at the age of 91 years. He was born in Sudbury, Mass., in 1787, was graduated at Harvard University in 1806, and commenced practice in Boston in 1810. He early became known as a skilful botanist, having an extensive correspondence with botanists in Europe, and several plants were named for him by Sir J. E. Smith in England, by Schrader in Germany, and in France by De Candolle. In 1814 he published "Florula Bostoniensis," to this day the most complete work of its kind, and a standard authority. In 1815 he published "American Medical Botany," in three volumes, octavo, illustrated by colored plates, after nature—one of the most beautiful productions of the American press. At this period he occupied the chair of Materia Medica in Harvard Medical College, and also that of Clinical Medicine; was an active practitioner in Boston for forty years, enjoying a large and lucrative practice; also for a long period physician to the Massachusetts General Hospital. From 1816 to 1827 he delivered lectures "On Application of Science to the Useful Arts," which resulted in the establishment of the "Institute of Technology."

In 1820 he was one of the "Committee of Five" selected to form the American Pharmacopœia; and the nomenclature of the Materia Medica (afterwards adopted by the British College), substituting (when practicable) a single for a double word, is due, in principle, to him. He also published numerous medical essays and discourses, some of which are to be found in a volume entitled "Nature in Disease." One of these, "Discourse on Self-Limited Diseases," has had great influence in modifying the practice of physicians since that time in regard to the treatment of *acute* diseases. His conservative mind exercised a healthy restraint in accepting, with caution, new theories on the action of drugs.

In 1854 he was elected Corresponding Fellow of the New York Academy of Medicine. Dr. Bigelow was the founder of Mount Auburn Cemetery, the first of its kind in the United States, and model of all other cemeteries which have followed. The stone tower, chapel, gates, and fence were designed by him. The colossal Sphinx, in granite, was his final gift, and will forever remain a suitable monument to his public spirited labors.

For many years he was President of the Massachusetts Medical Society, and of the American Society of Arts and Sciences. In 1856 the trustees of the Massachusetts General Hospital placed his bust, in marble, in their hall, in commemoration of his long-continued services.

In the last years of a life protracted long after the period allotted by the Psalmist, his failing strength prevented exercise, and his loss of sight rendered him helpless, but his mental faculties retained a portion of their early vigor until within a short period prior to his decease.

He was the oldest member of the Massachusetts Medical Society, and one of a group of prominent men whose lives are intimately connected with the early history of medicine in our country. The names of Nathan Smith, John C. Warren, James Jackson, and Jacob Bigelow, will long live in the annals of

our profession. The name of Bigelow is worthily perpetuated in his son, Henry J. Bigelow, M.D., surgeon to the Massachusetts General Hospital, etc. Dr. Bigelow was a most laborious worker, a skilful physician, a public-spirited and estimable citizen. He regarded the calling of the physician as a sacred vocation and the "noblest of all arts." He did not pursue it as a trade, for self-aggrandizement and wealth, but for the relief of suffering humanity. He was a man of refined taste, and the sketches illustrating his beautiful botanical works were from his own designs. As a lecturer he was fluent, his powers of illustration clear.. To his juniors he was ever kind, and, to the last, modest, ingenuous, and benevolent. His character is one which it is a pride to record, a pleasure to recall, a profit to imitate. Well saith Rome's greatest orator, "Brief is the time, short is the space allotted to man upon earth; but the memory of a life nobly rendered is immortal." J. G. A.

## BOOKS RECEIVED.

A PRACTICAL MANUAL OF THE DISEASES OF CHILDREN, with a Formulary. By EDWARD ELLIS, M.D., late Senior Physician to the Victoria Hospital for Sick Children, etc. Third Edition. New York: W. Wood & Co. 1879. 8vo, pp. 313. Wood's Medical Library of Standard Authors. No II.

SECTION CUTTING: a Practical Guide to the Preparation and Mounting of Section, for the Microscope, etc. By SYLVESTER MARSH. Philadelphia: Lindsay & Blakiston. 1879.

THE INFLUENCE OF POSTURE ON WOMEN IN GNECIC AND OBSTETRIC PRACTICE. By J. H. AVELING, M.D., Physician to the Chelsea Hospital for Women. Philadelphia: Lindsay & Blakiston. 1879.

ON THE TREATMENT OF PULMONARY CONSUMPTION by Hygiene, Climate, and Medicine. By JAMES HENRY BENNET, M.D., Member of Royal College of Physicians, London, etc. Third Edition. Philadelphia: Lindsay & Blakiston. 1879.

NAVAL HYGIENE. • Human Health, and the Means of Preventing Disease, etc. By JOSEPH WILSON, Medical Director, U. S. Navy. Second Edition. With Color-lithographs. Philadelphia: Lindsay & Blakiston. 1879.

DIPHTHERIA: its Nature and Treatment, Varieties and Local Expressions. By MORELL MACKENZIE, M.D., London. Philadelphia: Lindsay & Blakiston. 1879.

DIPHTHERIA: its Nature, Causes, Prevention and Treatment. Good Health Publishing Co.: Battle Creek, Mich. 1879.

# Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.— Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending February 8, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| Feb. 1, 1879. | 0 | 9 | 195 | 2 | 4 | 69 | 0 | 0 |
| Feb. 8, 1879. | 0 | 6 | 198 | 1 | 1 | 61 | 0 | 0 |

THE AMERICAN JOURNAL OF OTOLOGY.—We have received the first number of this new journal, published by Messrs. William Wood & Co. It is edited by Clarence J. Blake, M.D., of Boston, in conjunction with Prof. A. M. Mayer, of Hoboken; Drs. Albert H. Buck and Samuel Sexton, of this city; Dr. C. H. Burnett, of Philadelphia; Dr. J. Orne Green, of Boston; and Dr. H. N. Spencer, of St. Louis. This new venture will be devoted to the interests of physiological acoustics and aural surgery. In the introductory note the editor alludes to the remarkable increase which the past ten years have seen in the interest in the study of the laws which govern the production and propagation of sonorous vibrations, and correspondingly in the study of the structure, functions, and diseases of the complicated apparatus which enables us to appreciate that mode of motion to which we give the name of sound. This interest, which has received a new impetus by the inventions of the telephone and phonograph, suggests to the aural surgeon the necessity of over-stepping what has usually been considered the boundary of his professional province, by turning his attention to investigations in physics as the ground-work of his physiological and pathological studies, in order that he may be the better qualified to make that practical application of the knowledge to be so acquired in the conservative treatment of the various diseases of the human ear.

The number also contains the following original papers: "Twenty Cases of the Growth of Aspergillus in the Living Human Ear," by C. H. Burnett, M.D. (a continued paper of considerable practical importance and interest); "Syphilitic Affections of the Ear," by Albert H. Buck, M.D. (with a report of 21 cases); "The Use of Calcium Sulphide in the Treatment of Inflammation of the External Auditory Meatus," by Samuel Sexton, M.D., a capital and practical article. Then follow "Book Notices" (11 pages), and abstracts of papers (25 pages). If future numbers preserve the present standard of excellence, the success of the journal is assured. Being royal octavo, and printed in large clear type on heavy paper, each year's numbers will form a beautiful volume.

SLIPPERY-ELM BARK IN TAPE-WORM.—Eat large quantities of slippery-elm bark for several days, and follow with a castor-oil and turpentine emulsion. The entire worm, head and all, will be passed enveloped in the undigested slippery-elm bark, which seems to entangle the worm so as to cause it to lose its hold upon the intestines.

DIAGNOSIS of ALCOHOLIC COMA.—Dr. Macewen, of the Royal Glasgow Academy, lays down the rule that an insensible person who, being left undisturbed for from ten to thirty minutes, has contracted pupils, *which dilate when the person is shaken*, without any return of consciousness and then *contract again*, is suffering from *alcoholic coma*.

UNGUENTUM VASELINI PLUMBICUM.—Highly recommended by Prof. Kaposi, of Vienna, as a substitute for the *diachylon ointment* of Hebra, is prepared by heating equal parts of *emplast. diachyl. simp.* and vaseline together.

OUR esteemed contemporary, the London *Lancet*, gives (Nov. 30th) its readers a fine woodcut of a profile view of the bust of Harvey, which exists in the Harvey chapel, Hempstead, England. This profile view was drawn by the eminent Mr. Woolner, for Dr. B. W. Richardson, of London, and, it is claimed, gives the best representation of the face of the great anatomist extant.

DR. LOMBE ATTHILL, Master of the Rotunda Lying-in Hospital, has been elected an honorary member of the Gynæcological Society of Boston.

# Original Communications.

## EVOLUTION AND HUMAN ANATOMY.

By STANFORD E. CHAILLÉ, A.M., M.D.,

PROF. PHYSIOLOGY AND PATH. ANAT., MED. DEPT. UNIV. LA.

"In the place of miracle, natural science has substituted law."

THE "Descent of Man" closes with the once startling assertion, that "man still bears in his bodily frame the indelible stamp of his lowly origin." If this be true, then man's conception of an ever-loving and all-merciful God would be based on a benevolent reality, rather than on a malevolent fiction; since man would belong to a risen, not to a fallen race, and should exchange a discouraging belief in his degradation from a perfect parent for an encouraging faith in his own progressive development.

No one familiar with the history of the warfare between science and religion will be deterred from investigating the proofs of Darwin's assertion, though it is denounced by biblists as "evidently contrary to Scripture;" for, such denunciations recall the history of many similar contests, of which three, at least, cannot, for the good of mankind, be too often repeated.

The rotundity of the earth was denounced for centuries "as contrary to Scripture," * and the believers thereof were cursed and punished as "heretics, infidels, and atheists"—until Magelhaens, sailing ever in one direction, returned in 1519 to his point of departure.

The Copernican doctrine—that the planet of vainglorious man was not the centre of the universe, but that the sun was the centre of our system, and that the earth moved around this centre, not the sun around the earth—was declared, in 1616, by the Cardinals of the Roman Inquisition, to be "absurd, heretical, and contrary to Holy Scripture." The great book, which, in 1543, first taught this now familiar truth, was condemned to remain on the Roman "Index Librorum Prohibitorum" from 1616 to 1820. For advocating this truth, Bruno was burned, Campanello tortured, Galileo terrified into perjury; and Luther and Melancthon joined hands with the Pope, uniting Protestantism to Catholicism in upholding as scriptural † the woful ancestral errors, to the overthrow of which Copernicus and Galileo owe their undying fame.

For centuries the creation of "the heavens and the earth" within six days ‡ was an article of religious faith requisite to man's salvation. Even in 1850 the great Christian scientist, Agassiz, deemed it necessary in his geological lectures at Harvard, to explain and apologize to an audience of college-boys, for teaching that the works of the Creator buried in the bowels of the earth testified irrefutably that it could not have been made within six days; and to defend himself against the maledictions hurled against him by that pulpit and press, which accepting at last the lesson once fiercely denounced, now uses his great, but at one time execrated name, to wage an equally hopeless battle against the doctrine of evolution. The only doctrine which explains to the biologist the Creator's mode of action in accord with such well-known facts as: that useful animals are burdened with useless organs, and harassed by other animals, useless and noxious; that organs and organisms are modified by, and are adapted to the varying conditions of existence; that use causes development, disuse the atrophy of organs, and thus new organisms may appear, while old ones may disappear; and that nature's work is done through laws simple, uniform, and constant.

It would be presumed, that the marks of man's lowly origin, stamped indelibly upon his bodily frame, should be familiar to, at least, physicians, since they are forced to study human anatomy. But, in truth, few physicians, even though skilful anatomists, are well informed on this subject, for the reasons, that they pursue anatomy for practical purposes, not for philosophical deductions; that they study superficially, if at all comparative anatomy, on which depends the significance, so far as evolution is concerned, of human anatomy; and that the indelible marks of man's lowly origin are to be found chiefly in three directions, of little importance to, and, therefore, little studied by the medical anatomist. These three directions are: the anatomy of the human being while within the womb—embryology; the anatomy of bodies deviating from the common rule—anomalies; and the anatomy of certain parts—rudimentary organs—imperfect in and useless to man, but perfect in and useful to lower animals. In these three neglected departments of anatomy will be found in abundance the indelible marks of man's lowly origin. Some of these will now be presented under the headings: Embryology, Anomalies, and Rudimentary Organs; however, every example presented will not be strictly confined to its appropriate heading, because the three subjects are so related that often an example of one is strengthened when united to an example of the other. This close relationship is so marked between embryology and anomalies, that the classification of monstrosities, which are simply gross and hideous anomalies, is based upon embryology.

### EMBRYOLOGY.

If the different stages of man's development within the womb be not a synopsis or recapitulation of his genealogy during the enormous duration of terrestrial life—then these progressive stages are not only inexplicable, but also are so deceptive as to suggest the same explanation, once current as to fossils—that they were "delusions of the devil."

Man, "in action, how like an angel! in apprehension how like a God! . . . the paragon of animals," originates, not, as our ancestors taught, from a homunculus or diminutive baby, but from a little ovule or cell, as does a fish, frog, snake, bird, and dog; it is about $\frac{1}{177}$ inch in diameter, and apparently differs in no respect from the ovules of other mammals. In the hatching of this microscopic egg it successively presents in striking particulars the same forms of animal life disclosed in the successive strata of geology, and taught in our school-books as the five progressive steps from the lowest to the highest vertebrates; for, the human embryo, at first invertebrate, subsequently assumes, in many things, the organization of a fish, an amphibian, a reptile, and a mammal, while becoming man-like—and yet has never ceased to be a human being. At the third week of hatching, this future man is a gelatinous worm-like body, and even at the eighth week can scarcely be distinguished from the embryo of a dog. Among the details of this gradual development, the following deserve attention; but, to appreciate them, a comprehension of some facts in the development of lower animals is indispensable:

An egg, to grow, must, like every living thing

* See Is. xl. 22; Ps. lxxiv. 17; cxxxv. 7; Jer. li. 16; Rev. vii. 1.
† See Josh. x. 12, 13, 14; Mal. i. 11; Ps. civ. 19; cxiii. 3; Is. xxxviii. 8; Ec. i. 5; Hab. iii. 11.
‡ See Gen. i. 31; ii. 1, 2.

have air, water, and food for nutriment. How are these supplied? In all vertebrates, blood-vessels, always the conveyers of nutriment, sprout from the microscopic embryo within the yolk or vitellus, and, extending over its surface, form a "vascular area," which conveys to the embryo all such nutriment as the water or air outside of this area may bring in contact with it, and also the nutritious yolk inside of this area: as the embryo thus consumes the yolk, this constantly diminishes, so that the vascular area gradually becomes a sac, which is called the "umbilical vesicle." The blood-vessels constituting first the vascular area, then becoming the vessels of the umbilical vesicle, form what is called the vitelline circulation, which, though the primary circulation of every vertebrate, is transient, disappearing by atrophy as soon as the yolk has been consumed, and other organs have been developed to supply the ever indispensable air, water, and food. This vitelline circulation supplies with nutriment the embryo of a fish, and of its brother frog, until converted into a minnow or a tadpole, when the sufficiently developed alimentary canal, and gills or branchiæ provide the requisites for additional growth.

The egg of a bird and of a reptile is at first nourished by the same vitelline circulation which suffices to convert an embryonic into a perfect fish; but, long before the hen's egg becomes a chicken, this primary circulation begins, inexplicably to the special creationist, to disappear, while two new organs are developed—the amnion, with the more important allantois, which supply the embryonic bird and snake with a *secondary* circulation, in place of the disappearing *primary* one of the fish and frog. Thus, the hen's egg is provided with air and food until it becomes a chicken, when alimentary canal and lungs (not gills) discharge permanently outside the egg the functions discharged transiently within the egg, first by the vitelline, and second by the allantoidal circulation.

How grows the mammal's egg? As grows the egg of a woman. The human embryo is, by the "afterbirth" or placenta—which is formed in large part by transformation of the allantois, first into the chorion, then into the placenta—grafted upon the mother's womb, and derives its nutriment from the blood of the mother. But, it must always remain an inscrutable mystery to the special creationist, that the Omnipotent delays thus to graft the embryo upon the mother until about the fourth month, and insists on forcing the human and every mammalian egg to secure its nourishment: first, through the fishy and amphibious vitelline circulation, which, quickly disappearing, is replaced by the allantoidal circulation of the reptile and bird—which second circulation also quickly disappears to be replaced by, third, the placental circulation. Now, let it be observed, that, on the one hand, the vitelline circulation of the fish is bathed in water, thence obtaining air in abundance, and that the allantoidal circulation of the snake is in contact with the delicate porous egg-shell, through which air is readily absorbed; while, on the other hand, these two circulations in the human embryo are in contact, not with water nor with the external air, but with only one air-providing menstruum—the fluids secreted by the mother's womb—fluids which provide air, as also food, much less perfectly than is subsequently done by the blood of the placenta. Why then should the human embryo be furnished *temporarily* with the embryonic organs, first of a fish and amphibian, and then of a reptile and bird, prior to the development of the mammalian placenta—unless these organs, less perfect and more transient than the placenta, be indelible marks of man's hereditary descent? The student of vital phenomena cannot ignore the important purport of "the appendages of the embryo" and of the elementary facts now stated—facts, which become of convincing significance when associated with those now to be presented.

The vitelline circulation is, by no means, the only indelible mark of man's piscine ancestry. Not until the sixth week does that *gill-apparatus* disappear, which, permanent in fishes, is transient in the embryos of reptiles, birds, and mammals. The human embryo has on each side of the neck, as has an adult fish, "branchial arteries" (five), distributed to cartilaginous "branchial arches" (four), which have between them "branchial fissures" opening into the pharynx. From the "branchial arteries" of most fishes are developed, for aquatic respiration, numerous vascular "gill-fringes" by which the air, dissolved in the water pouring through the "branchial "fissures," is absorbed. But "gill-fringes" are useless to animals which do not breathe in water, and since disuse of these fringes should cause their atrophy in a human embryo, just as it *does* in a tadpole, it is in perfect accord with nature's laws that these gill-fringes are not present in the human embryo; even in some fishes they are dispensed with. In farther evidence that the embryonic branchial apparatus is perfectly homologous with the permanent gills of fishes it is found that, as the arterial system of the fish is formed from its branchial vessels, so the arterial system of the human embryo is formed from its branchial arteries—all of which gradually disappear by a conjoint process of atrophy, and of transformation into man's permanent arteries. Man's embryonic "branchial fissures," through which, in fishes, the air-supplying water passes off, also undergo transformation; however, as an anomaly, "original branchial fissures may persist in the neck, even in adults."*

Man's lungs are first developed as two little sacs, which, prior to the development of the trachea or windpipe, open temporarily, as the air-sacs of fishes permanently do, into the upper part of the alimentary canal—usually into the pharynx.

Man's embryonic heart is at first a simple tubular pulsating sac, like that of the lowest vertebrate—that exceptional and wonderful, heartless, and brainless fish, the lancelot or amphioxus. This single sac is soon divided by a septum into two sacs, and thus man has temporarily the two-chambered permanent heart of fishes. This piscine heart soon becomes a three-chambered reptilian heart, distributing, like it, impure venous mixed with pure arterial blood.† This snake-like heart does not become the perfect heart of the bird, mammal, and man, with its four completely separated cavities, until several days after birth; and, as an anomaly, the three-chambered heart may persist in man, causing the well-known "blue disease." As another peculiarity of the vascular system, man has but one great vein—the superior vena cava—to return the blood from the upper part of his body to the right auricle of the heart; but in his early embryonic condition, "*two* superior venæ cavæ open independently into the auricle. This condition remains permanent in birds, and in some of the lower mammalia, which possess both a right and a left vena cava superior, opening separately into the right auricle. Instances are occasionally met with, from

* Page 953, Vol. IV., Cyclop. Anat. and Phys.

† The reptilian heart has only one ventricular, and two auricular cavities; while the human embryonic heart has only one auricular, but two ventricular cavities.

arrest of development, of two such veins in the human body." *

The "Wolffian bodies" are the permanent kidneys of the fish, and of his immediate descendant, the frog; but, they constitute only the "false" or "primordial kidneys" of higher animals. The human embryo possesses them until about the third month, when they disappear by atrophy, giving place to the permanent true kidneys. These are in man smooth and unlobulated, but are lobulated in lower animals—so they are in the human embryo, and, as a frequent anomaly, this lobulation may persist in the adult man.

Fishes, amphibians, reptiles, and birds, are *cloacal*, that is, have one common fecal and uro-genital outlet; so, the human embryo is cloacal to the twelfth week of its existence. The urachus, a relict of the allantois and of this cloaca, running from the bladder to the navel, is in some animals a pervious duct. "It has been found (says Wilson's Anatomy), pervious in the human fœtus, † and the urine has been known to thus pass through the umbilicus."

The "descent of the testicle" from the abdomen of the fœtus is by a pouch continuous with the peritoneal sac of the abdomen. This continuity, permanent in many lower animals, as in the rabbit, is habitually temporary in man; but may as an anomaly, persist, and thus cause the well-known "congenital inguinal hernia." Farther, this "descent of the testicle" is guided by a muscular cord, the gubernaculum testis, which at birth has lost its muscular character, and become (teaches Dalton's Physiology), "merely the anatomical vestige or analogue of a corresponding muscle in certain of the lower animals, where it has really an important function to perform" throughout adult existence.

The early embryonic womb appears bifid, and internally "presents a strongly marked triangular form, the vestige of its original division;" and, as anomalies, women may have not only "two-horned," but even "double wombs." Now, in apes, the womb is slightly notched, and, therefore, more distinctly bifid than in women; in cetacea, solipeds, and ruminants, it is distinctly "two-horned;" and marsupials, as well as some rodents have a "double-womb." ‡

The placenta is formed in part by the mother, and in part by her offspring—in women these two parts are eventually soldered inseparably together; but in the earlier stages of development these parts are separable, as is always the case in the cow and other animals. The fœtal part of the placenta is formed by numerous vascular tufts of the chorion—called cotyledons, which in woman are soldered together into the smooth, single "discoid placenta;" but in ruminants the cotyledons continue separate, and they have habitually a "cotyledonous placenta:" as an anomaly, a woman may have a cotyledonous, instead of the usual discoid placenta. § The human fœtus is born linked to the placenta by the umbilical cord, which contains two umbilical arteries, and only one umbilical vein; but in the earlier stages of development there are two umbilical veins—which, always present in some lower animals, as (Topinard) in Cebian monkeys, may, as an anomally, persist in the human fœtus.

Man's nervous system originates in a cord having one anterior bulbous enlargement, as is the permanent form of the cerebro-spinal axis of the amphioxus. This single bulb, first separating into the "three cerebral vesicles," subsequently develops man's complicated brain. Thus, as in the successive classes of vertebrates, so in the successive phases of the human embryo's life are found developed all stages of the nervous system, from the simplicity of the amphioxus to the complexity of the highest mammal. Man's brain possesses no parts not present in the brains of the highest apes; * it differs from theirs, not in quality, but in quantity—in the greater complexity of the convolutions, in the lack of symmetry between the two sides, and in the greater size. But, our convolutions do not begin to be developed until the fifth month—even at the seventh month of fœtal life, man's brain is as unconvoluted, and as symmetrical as is the adult baboon's; and, as anomalies, human beings may be born as destitute of brain as is the amphioxus—and the brains of congenital adult idiots, seldom weighing more than twenty-three, may not exceed even eight and one-half ounces—while the average weight of the gorilla's brain is about seventeen ounces.

Man's bony system passes through a cartilaginous stage, which, temporary in him, is permanent in some fishes; and our bones present other indelible marks of our lowly origin, besides those which follow.

The single adult frontal bone (forehead) consists in lower animals of two separate pieces; such is its condition in the human embryo, and these two frontal bones are not united until the first year after birth,—as an anomaly, this union may never take place.

In some apes and other mammals the malar, or cheek-bone, is permanently divided in two portions; and this sometimes occurs in the human embryo.

Lower animals have a distinct inter-maxillary bone for the incisor-teeth of the upper jaw; so to the fourth month has the human embryo. The final union of the inter-maxillary with the superior maxillary bones is marked by a fissure for some three years after birth, and, by arrest of development, may never take place—thus causing, as an anomaly, the well known deformity—hare-lip.

In the human embryo, "at one time, the two nasal passages or fossæ are closed at the bottom, a condition which is permanent in fishes; afterwards they communicate, in front of the palate, with the mouth, as in certain amphibia; finally, they open only into the pharynx, as in reptiles, birds, and mammals." †

In the human embryo the great toe is shorter than the others, and farther from them,—even projecting at a right angle,—as is its permanent condition in the quadrumana.

To the eighth week the coccygeal or tail-bones of the embryo-man project beyond the rudimentary legs, and as far beyond as in the embryo-dog. This veritable tail, though usually aborted, may, as an anomaly, persist, as shown by Mr. Owen, who, April 25th, 1878, related to the Harveian Society of London "a case of a fœtus he saw, which had a tail that was *curled up on one buttock* and *distinctly moved*. It was successfully removed by ligature, and was now in the museum of Guy's Hospital. The child lived to sixteen years of age." ‡ That the coccyx is an indelible mark of a true ancestral tail, is further indicated by the presence, even in the adult, of muscles which for-

* Marshall's Physiology, Am. Ed., p. 977.
† The human being is termed embryo, until the beginning of the intra-uterine fourth month, and from this date to birth is called fœtus.
‡ Marshall's Physiology, Am. Ed., p. 974.
§ Cazeaux: Midwifery, Am. Ed., p. 196.

* The highest apes, anthropoids, or anthropomorpha, are the gorilla, gibbon, chimpanzee, and orang.
† Marshall's Physiology, Am. Ed., p. 965.
‡ Br. Medl. Jour., May 11, 1878, p. 680.

merly moved it, but which, by long disuse, have atrophied and become rudimentary."*

Finally, the poetical seven stages of man's life outside the womb are even surpassed by those within it, as numbered by embryologists. The most striking of these embryonic stages are, the Ascidian, the Amphioxian, the Piscine, the Reptilian, the Mammalian, the Quadrumanous, and the Human. What theory, other than evolution, offers even an attempt to rationally explain the significance of these stages, and of the facts now presented?

ANOMALIES.

Anomalies are deviations from the habitual construction of the body; the grossest are termed monstrosities, others constitute deformities, while the greatest number are simple deviations without being, in any wise, malformations. Most anomalies represent anatomical structures habitually found in lower forms of life, hence constitute what evolutionists term—*reversions*. Examples of monstrous, then of ordinary anomalies, will now be given.

A monster † is not, as until recent times was taught, an instance of "divine vengeance," nor a "work of the devil," nor a result of bestial intercourse, nor a lusus naturæ, nor the product of a creative force of special kind; but is due sometimes to excessive, sometimes to perverted, or, far more frequently, to defective embryonic development. Since the transient forms of the human embryo are, for the most part, repetitions of the persistent forms of lower animals, it is not singular that malformations due to arrested development should present a brute-appearance; nor is it singular that our ancestors, ignorant of embryology, should long have erroneously ascribed beast-like monsters to bestial intercourse, and that this error should still find credence among the ignorant.

The human embryo is, in its earliest stages, as destitute of head, brain, heart, and extremities, as are the permanent forms of many lower animals; hence, from arrest of development, a human monster may be born as headless as a worm, as brainless, and heartless as the amphioxus, and as limbless as a snake. Every variety and degree of deficiency in these and other parts, from complete absence to perfect development, may occur. Not only may development be arrested prior to the separation of the head from the trunk, thus producing a headless monster, but there may be a partial arrest producing a brutish, frog-like deficiency of neck; not only may the four extremities be all wanting, as in the worm and snake, but the hands or feet may, turtle-like, be attached to the shoulders or pelvis, and the two lower extremities may coalesce into one, as in fishes. Man's embryonic eyes are at first located on as diametrically opposite sides of the head as are the eyes of fishes, or of rodents; hence, by defect of development, may result human monsters, thus hideously deformed.

Before citing other examples of anomalies it is well to recall, that in addition to the above monstrosities, some fourteen instances of ordinary anomalies have already been presented in connection with embryology. To this list of reversions may be added the following indelible marks of man's lowly origin:

The vast majority of flowering plants, and also many inferior animals (as tape-worms, slugs, snails, etc.), are "double-sexed," and it is now generally conceded that *true* hermaphrodism is, in man, "not only possible, but probable."

Many lower animals have a "penial bone," and as a relic of this "a prismatic cartilaginous body has been occasionally found in the centre of the glans" penis of man.*

Instead of having one nipple to each breast, or mamma, a woman may have, like some lower mammals, additional supplementary nipples; and her mammæ may, like the Monotreme's, be destitute of nipples. A woman may have, instead of the usual two pectoral mammæ, supplementary mammæ sufficient to furnish her with five breasts; she may have on the belly, the abdominal mammæ of Marsupials, or in the groin, the inguinal mammæ of Ruminants. She may have, like the Lemur, the lowest animal of man's order, the primates, two pectoral, and two inguinal mammæ. Among all mammals a marked relation exists between the number of mammæ and of young at one birth; and it is found that a woman may have occasionally, as some lower animals have habitually, two and even five living young at a birth.†

Man has occasionally a supplementary spleen, which is constant in the sturgeon, dolphin, narwahl, and doubtless in other animals.‡

Many birds have a "vitelline cæcum," that is, a pouch-like process, or a "short, narrow, blind diverticulum, connected with the small intestine;" "a similar diverticulum is occasionally found in mammalia, and even in man."§ Man may be web-fingered and as web-toed as a duck, and he may have two toes occasionally webbed, as they constantly are in the gibbon.

In man there is occasionally a simian conformation of the cartilage of the ear ("square above, rounded off, and without a lobule"); he may be born as destitute of external ear as a fish, frog, or snake, and as eyeless as a fish from the Mammoth Cave.

Like Esau, and many more recent instances, man may be as hairy as are most of his mammalian ancestors; and, he may have, instead of ordinary nails, as solid claws on fingers and toes as have the Carnivora.‖

Anomalies of the bones are numerous. There may be complete fusion of the two parietal bones into one, as in rodents; and there may be, as in some lower animals, an interparietal bone. In the white race the two bones proper of the nose remain separate to an advanced age, as is not the case in other animals; but their fusion may occur early, especially in the inferior races of man, as for instance in Hottentots about the twentieth year; while in the chimpanzee and gorilla it occurs about the second year.¶ The spinous processes of man's 3d, 4th, 5th, and 6th cervical vertebræ are habitually bifid, but they are, especially in the inferior races, sometimes simple, as they constantly are in lower animals; however, the chimpanzee has two of these processes bifid, thus pre-

* Gray's Human Anatomy, Am. Ed., p. 228, says, "the extensor coccygis is a slender muscular fasciculus, occasionally present, . . . . it is a rudiment of the extensor muscle of the caudal vertebræ present in some animals."

† Human monsters are reported by some to occur as often as once in every 1,600, and by others once in every 3,000 deliveries. Fortunately many die early.

* Huxley's Vertebrates, p. 417.

† Churchill reports that in 448,988 deliveries, twins occurred once in 78, and triplets once in every 5,831 cases.

To correct frequent misapprehensions of two sexual questions, it may be here added, that Flint's Physiology, p. 875, teaches that monkeys, as well as women, have a monthly catamenial discharge; and Topinard's Anthropology, p. 150, teaches that the gorilla and chimpanzee are monogamous.

‡ Mivart's Element. Anat., p. 484.

§ Marshall's Physiology, Eng. Ed., p. 187, v. 2; and p. 622, Wilson's Anatomy.

‖ In 1864 one such case was seen by the writer, at Macon, Ga., in a Confederate conscript, who stated that his long, round, solid claws were inherited, and had been transmitted to one of his children.

¶ Topinard's Anthropology, p. 127.

senting in this particular a *transition* form. Man has occasionally—instead of his habitual twelve dorsal and five lumbar vertebræ—the thirteen dorsal and four lumbar vertebræ of the gorilla and chimpanzee; or the twelve dorsal and four lumbar vertebræ of the orang. Instead of twelve, man may have the thirteenth rib, out of which Eve was conjecturally made, and which some lower animals habitually possess.

Many animals have—to protect the principal artery and nerve of the humerus from compression—a "supra condyloid foramen," which is occasionally found in man, it is said, once in every hundred cases; still more frequently is found a small hook-shaped process, as a rudiment of this foramen.*

In some fishes and crocodiles, says Mivart, several successive series of new teeth appear to replace old ones; so, occasionally in man, there may occur a third, and perhaps even a greater number of series of new teeth.

Occasionally in the superior, frequently in the inferior races, man's lowly origin is stamped upon him by the projecting upper incisors of the anthropoid, by his prognathous under-jaw, and by his monkey-like "facial angle."

A man has more than five hundred separate muscles; variations in number and attachment are frequent, particularly in negroes; and these variations or anomalies constantly illustrate reversions to lower animals, and especially to the anthropoids. Topinard asserts that the sternal muscle of mammals is present in 18 of 600 men; that the ischio-pubic muscle, constant in the majority of male animals, is present in 19 of 40 men; that the levator claviculæ of most apes is present in 1 of every 60 men; that in one man, seven muscular peculiarities of certain apes have been found; and that a marked muscular peculiarity of anthropoids and monkeys, as distinguished from men, is the habitual presence in the former and absence in the latter of an accessory fasciculus of the latissimus dorsi, but that this fasciculus has been "observed in a rudimentary state in some negroes." †

Huxley teaches,‡ that man has usually only two muscles,§ which the anthropoids do not have, but that the one is sometimes, and the other is frequently wanting in man; that the anthropoids have usually only four muscles,‖ which man does not have, but that all these are sometimes absent in anthropoids, and present in man; and, in fine, that "all the apparently distinctive peculiarities of the myology of the anthropomorpha are to be met with occasionally, as varieties in man."

### RUDIMENTARY ORGANS.

Rudimentary organs found in all kinds of plants and animals, are the perfectly useless, and at times, even detrimental relics of useful organs in lower forms of allied plants and animals. The presence of such relics in the adult, and their better development in the embryo, are among the most convincing evidences of evolution; while to him who believes that all things were specially created for some special and useful purpose, these relics must continue to always be "inscrutable mysteries." How is it possible to explain, except by the *derivative* creation of evolution, such facts as follow?

The canine and upper incisor-teeth of ruminants exist in a rudimentary state, but are invisible, because they never rise above the gum; so also, the fœtal whale has teeth which are never cut. Many insects have wings; lying under wing-cases which are firmly soldered together. Even entire limbs may be rudimentary—certain snakes having hind-legs hidden beneath the integument.* There often reappear the stump of a tail in tailless breeds, minute dangling horns in hornless breeds of cattle, the vestige of an ear in earless breeds, and the rudiments of eyes in eyeless animals.

The rudimentary organs of man, if neither so surprising nor so numerous as in lower animals, are as significant. To the several examples heretofore presented will be added the following:

The porpoise, the hedgehog, horse, and other brutes, have a highly developed group of skin-muscles, termed the panniculus carnosus—which is rudimentary in man, being represented only in part; for instance, by the platysma myoides in the neck, by the occipito-frontalis over the skull, and by occasional traces in the arm-pits, and other localities. The fibres of the rectus muscle of the abdomen are interrupted at intervals by from two to five transverse tendinous intersections—termed lineæ tranversæ, which are the vestiges of ribs in some mammals, and especially in reptiles.† Although few men can move the external ear, and even these imperfectly, yet all men have three rudimentary ear-muscles,‡ which are the analogues of large and important muscles in some of the mammalia. A small projection, sometimes found on the superior border of the helix of man's ear, is believed by Darwin to be the vestige of an ancestral *pointed* ear.

Man, and all male quadrupeds have rudimentary mammæ, which, considered in connection with "double-sexed" anomalies, have, no doubt, a deep significance. Man has, over the whole body, rudimentary hairs, which are supposed to be vestiges of a uniformly hairy coat. Man has a small laryngeal sac, the ventricle of the larynx, which is believed to be the rudiment of a very large cavity in anthropoids, and in other animals. The white man's third molars, or wisdom teeth, are sometimes never cut, are especially prone to decay, have only one root instead of two or three, and are smaller than the first and second molars; since this is not the case in lower animals, nor in apes, nor in the inferior races of man, it is believed that the European's wisdom-teeth are *tending to become* rudimentary.

In mammals generally, and in lower vertebrates, there is present in each eye a "nictitating membrane," or "third eyelid," which often, if not always, springs from the inner and nasal side of the eyeball; in the same part of man's eyes is constantly found, as a rudiment of this third eyelid, the semilunar fold, or "plica semilunaris."§

One of the best known, and most remarkable of the rudimentary organs of man, is that worm-like ap-

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*Gray's Anatomy, Am. Ed., p. 131, teaches, that this foramen, or its rudimentary hook-like process, are, when present, found "some two inches above the internal condyle."

† Topinard's Anthropology, p. 98. However, Gray's Anat., Am. Ed., p. 272, teaches that an accessory of the latissimus dorsi is found in one of every 13 men.

‡ Huxley's Vertebrates, pp. 408, 417.

§ The extensor primi internodii pollicis, and the peroneus tertius.

‖ The levator claviculæ, dorso-epitrochlearis, scansonius, and abductor ossis metacarpi quinti digiti.

* Dalton's Physiology, p. 614, teaches that the anterior extremities of the embryo-frog are at first concealed beneath the integument.

† Mivart's Element. Anat., p. 389, says, "The lineæ tranversæ may be absent, as in the hedeghog, etc.; or they may be seven in number, as in the racoon, or they may be replaced by regular abdominal ribs, which subdivide the rectus into a longitudinal series of successive segments, as in the chameleon."

‡ The attolens, attrehens, and retrahens auris.

§ In dogs, cats, and carnivora generally, the eyelids do not separate from each other until eight or ten days after birth, and in the human fœtus they remain adherent to the seventh month.

pendage to the cæcum, or head of the large intestine, called the appendix vermiformis cæci. The highest apes, and, it is said, the marsupial wombat, are the only animals which share with man the honor of possessing this curious and useless organ—which serves no purpose, thus far conceived by human ingenuity, except either to occasionally cause death, as by impaction of a cherry-stone, or to present a very indelible mark of man's lowly origin. To properly estimate this cæcal appendage, a few facts in comparative anatomy must be understood.

The cæcum is a pouch-like elongation of the large intestine at its junction with the small intestine. The ant-eater and armadillo have, as birds generally have, two such blind elongations, or a "double cæcum;" the manatee has a bifurcated cæcum; but mammals, as a rule,* have only one cæcum, which always large, may be of enormous size, as in the hare, the indris, the marsupial koala, the horse, and in ruminants. The cæcum of the koala is three times the length of its body, while that of the horse is longer than three feet, and holds more than seven gallons. Farther, lemurs have a peculiar cæcum, in that, it is "drawn out into an elongated conical termination;" and some, if not all, carnivora, have a "spirally twisted" cæcum. †

These facts seem to throw light on the gradual transformation of the large mammalian cæcum into man's insignificant organ,‡ which has attached thereto a small, elongated, worm-like, conical, and spirally twisted appendix. Can any doubt remain that this appendix is the vestige of the long and large cæcum possessed by man's mammalian ancestors? If so, the doubter is required to explain why it is that in his own, as in every man's early embryonic development—*his* cæcal appendage was, at first, long, of large size, and as wide as the cæcum itself, so wide that the small intestine seemed to be inserted into the side of the large intestine, leaving a large pouch-like free end, which, becoming by degrees conical, was gradually constricted and twisted into the adult's familiar, small, and worm-like appendix? Such doubters have no refuge from the scylla of "*derivative creation*," except in the charybdis of "*inscrutable mystery*."

Comparative anatomy has already acquired sufficient knowledge to increase the long list, now given, of the indelible marks of man's lowly origin. As the future perfects this knowledge, not only will there be many important additions, but a brighter light will be thrown on the facts herein presented. However instructive such detailed facts may be, yet, only a fraction of the evidence in favor of evolution depends on human anatomy; and the general facts are as decisive as are details to him thoroughly imbued with a conviction of the simplicity, uniformity, and constancy of nature's laws. For chemistry teaches that man's chemical, microscopy that his histological, morphology that his homological structure, agrees with the whole animal kingdom. Palæontology has stamped in permanent letters of stone the same succession of animal life, impressed by fleeting hours on the offspring within the womb of every mother; and comparative anatomy, physiology, and pathology, present innumerable general, as well as special facts, to prove—that man, though ultimately formed of those chemical elements, which constitute in part, "the dust of the ground," was not formed directly out of these lowly dead inorganics, but had his immediate origin from the very highest organic living matter.

* Human anatomists habitually assert or imply that all mammals have a cæcum; but, Mivart's Element. Anat., pp. 447-8, teaches that "the presence of a cæcum is not quite constant in man's class," for "it may be wanting altogether, as in the hedgehog, weasel, porpoise, and others."

† The cat, dog, and other carnivora, says Chauvau's "Comp. Anat. of Domesticated Animals," p. 417.

‡ Man's cæcum is a small reservoir, only 2¼ inches in length; his cæcal appendage is very variable in length, usually about three, it may be six inches long. This variability is significant.

## A CASE OF PUERPERAL ALBUMINURIA, WITH URÆMIC SYMPTOMS, TREATED BY JABORANDI.

By ELIZABETH M. CUSHIER, M.D.,

RESIDENT PHYSICIAN OF NEW YORK INFIRMARY.

At the last annual meeting of the Gynæcological Society, Dr. T. G. Thomas suggested the use of jaborandi in the treatment of the parenchymatous nephritis of pregnancy. Upon reading this suggestion in the minutes of the Society, published in THE RECORD at the time,* I thought that the report of such a case, which had already occurred under my own observation, and where jaborandi had been successfully employed, would not be devoid of interest. It is believed that some of the details of this case may moreover help to throw light upon the exact modus operandi of this medicine in the treatment of uræmic symptoms.

Agnes H., prim., entered N. Y. Infirmary for Women and Children, for confinement, on September 5, 1878. The patient gave a history of having been in poor health during her entire pregnancy, but no satisfactory details regarding it were obtained.

Upon seeing the patient I was struck by the pallor and slight puffiness of the face. Elsewhere there was no œdema, excepting to a very slight degree in the lower extremities. An examination of the urine giving perfectly normal results, it was concluded that the œdema was due to anæmia alone, and treatment was directed to this.

From this time the general condition improved; her face assumed a better color, and she reported herself as quite well until the evening of Sept. 28th, when she complained of having had headache and nausea during the afternoon. Her face was flushed and the tongue coated. The temperature and pulse were normal. A cathartic was given, and the urine directed to be again examined.

On the following morning the patient was reported as having been very restless during the night. The bowels had not moved, nor had any urine been passed since 5 P.M. of the day previous. The face was now decidedly œdematous. The headache and nausea were very much increased, and there was marked impairment of vision. Four ounces of urine were removed by the catheter, and upon examination it was found to be loaded with albumen. At 9 A.M. a purgative was administered, but it was immediately vomited. An enema was then given containing three minims of croton-oil, and was followed by two small stools. The hot-air bath was then employed with the effect of producing only a slight moisture of the surface. Later, considerable pain in the region of the kidneys being complained of, dry cups were applied, with relief. The nausea persisted with occasional vomiting, and the patient was unable to retain even a little milk or water. Microscopic examination of the urine at this time showed blood-corpuscles and small waxy casts.

At 4 P.M. one-sixteenth grain of pilocarpine was

* MEDICAL RECORD, October 12, 1878.

given hypodermically, and repeated three times at intervals of half an hour. A decided moisture of the skin followed, but no profuse sweating.

At 5 P.M. five ounces of urine were removed, which upon boiling was found to be two-thirds loaded with albumen.

At 7.30 P.M. another effort was made to move the bowels, a half-grain of elaterium being given per rectum. This was repeated at 11.15 and at 11.30 P.M. without effect.

On the following morning the patient was reported as having slept somewhat during the night. She had vomited but twice, and had retained a little milk. The headache and nausea were diminished; the bowels had not moved, however, nor had any urine been passed. The pulse was at this time 84, and the tension very much increased. At 11 A.M. seven ounces of urine were drawn. The character was the same as before. At about this time Dr. Putnam-Jacobi saw the patient, and advised the administration of pilocarpine in larger doses. A half-grain was accordingly given hypodermically, and was followed within five minutes by profuse sweating, ptyalism, and vomiting of mucus. During the afternoon there was very marked improvement in the symptoms. The headache and nausea subsided, and milk was retained without difficulty.

At 7 P.M., as there had still been no movement from the bowels, the patient received one-quarter grain of elaterium by the mouth. This was repeated at 9 and 11 P.M. At 4 A.M., Oct. 1st, there was a small stool.

During the morning seven ounces of urine were drawn. There was no diminution in the amount of albumen. Blood and casts were still present—the former, however, in less quantity. At this time a decoction of scoparius was ordered, half an ounce to be given every two hours during the day. A 7 P.M., as the amount of urine passed was still very small, the jaborandi was repeated—this time in the form of the fluid extract, of which ʒ j. was given. The sweating was again profuse, and during the night the urine began to flow freely. From this time there was neither headache nor nausea. The puffiness of the face diminished, and food was retained and relished. The urine continued to flow freely; it was still, however, loaded with albumen.

Oct. 5th, 7.30 P.M.—Patient began to have slight labor-pains, and with the object of warding off any possible danger from an increase of the renal congestion during the effort of parturition, the jaborandi was repeated, with the same effect as before.

The labor progressed, and terminated naturally at 1.30 A.M., Oct. 6th. During the latter part of the labor there were at times marked dilatation of the pupils and extreme pallor of the face. No serious symptoms, however, manifested themselves. Immediately after labor the patient complained of severe pain in the head. The pain was referred to the vertex, and was apparently most intense. It was controlled by morphine.

At 11 A.M., on the 6th, six ounces of urine were drawn; this being all that had been excreted since the previous day, unless it had been involuntarily passed during labor. It was found to be nearly solid with albumen. The decoction of scoparius was again given, and during the night the urine began to be more free. The pulse, which had varied from 72–84, and which had been increased in tension, now became more rapid, varying from 96–108, and the tension was very much diminished. The urine continued to be passed freely—reaching, on some days, as high as 40–42 ounces. The albumen diminished in amount, and the blood-corpuscles disappeared. There were still present, however, very slender hyaline casts. On Oct. 29th, the patient was discharged in an apparently very good condition, although the albumen had never entirely disappeared from the urine.

It seems quite probable, judging from the severity of the symptoms at the beginning of the evidence of uræmic poisoning, that serious trouble might have arisen at the time of labor, had not very active treatment been resorted to; and of this treatment it is evident that the jaborandi was followed by the most decided results. Diuretics were without effect until the renal congestion had been relieved, and the cathartics employed for this purpose were quite ineffectual, although care was taken to procure a good preparation of the elaterium. It is noticeable that although the uræmic symptoms had disappeared, it was not until after profuse diaphoresis had taken place a second time that the kidneys began to act notwithstanding diuretics had been previously employed.

The jaborandi was not followed by any undesirable effect either upon pregnancy or labor. The latter—although the pregnancy was fully at term—did not take place until a week after the beginning of the administration of the drug.

The following analysis of sphygmographic traces, taken at different periods of the attack, has been given to me by Dr. Putnam Jacobi.

The first traces were taken September 30th, the day

FIG. 1.

FIG. 2.

after the first appearance of the uræmic symptoms. Pilocarpine had been given the day previous, but with only slight effect in producing perspiration. Typical trace-pressure of 8 oz., Fig. 1; percussion stroke vigorous, but oblique and short; systolic apex extremely rounded, passing into developed tidal wave; scarcely any trace of dicrotism; no elasticity oscillations; ventricular systole prolonged. The traces were almost as much developed under high pressure as under lower. All these characters show high tension of vascular system dependent upon repletion of some portion of it, which repletion offers considerable resistance to the cardiac impulse. After profuse sweating from one-half grain of pilocarpine, trace changes. Under

FIG. 3.

pressure of 9 oz. Fig. 2, the tidal wave is less developed, and, from the aortic notch to the end of the curve, the line is flattened instead of rounded, as in the first traces. This shows that the wave of blood reflected from the aortic valves on their closure is smaller in the second case than in the first. In other words, the tension has been positively, though not very markedly, diminished by diminution in the contents of the arterial system. The force of the heart remains unaltered. The diminution in intra-arterial pressure can only have been effected indirectly by diminution in the venous tension through the profuse diaphoresis. The uræmic symptoms, once dissipated, did not return, but the urine continued to be loaded with albumen. The third series of traces were taken on October 4th. At this time the high arterial tension was found to have been reproduced, but entirely unaccompanied by uræmic symptoms. The urine, although more abundant, was still loaded with albumen. The patient felt perfectly well. In this series of traces the curve was developed at a very low pressure (three ounces), Fig. 3, which with Mahomed's sphygmograph usually gives no tracings at all. The artery, however, continued to yield abnormally developed curves under a pressure of ten ounces, and even under eleven, at which it is usually extinguished; the curves were more full than is often found in women. Dicrotism was effaced. From all these characters we must infer that, under the influence of the tubular nephritis obstructing the transudation of water, the serous repletion of the vascular system had been reproduced, while the complete absence of uræmic symptoms would show (at least in accordance with a theory partly based upon this very class of cases) that the cortex of the kidney was at this time unaffected.* The transitory uræmia would then be explained by a temporary congestion of the cortex complicating the ordinary medullary or superficial nephritis of pregnancy.

Since the relief afforded to the uræmic symptoms by the pilocarpine was out of proportion to the alteration in tension of the radial pulse, it is evident that the diaphoresis must have acted in some other way than by lowering the general vascular tension, by the removal of an excess of water from the blood.* It is evident, moreover, that an abnormally high tension of the vascular system, together with intense albuminuria, is not sufficient to cause the cerebral symptoms. As in this case both these conditions persisted, while the latter symptoms were absent, two hypotheses suggest themselves to explain the action of the jaborandi:

1st. The excessive secretion of the perspiratory glands sufficed to remove from the blood not only an excess of water, but also the poisonous organic substances usually excreted by the kidneys (urea, extractive.)

2d. The determination of blood to the skin to meet this exaggerated activity of the sweat-glands acted as a derivative to the circulation of the kidneys, and thus relieved the congestion of their cortex. The desquamative lesion of the medulla remained untouched, and therefore the albuminuria persisted. Further, in a general afflux of blood to the periphery the peripheric radial artery must necessarily share, and by this must its tension be increased, even though the tension of the central vascular system had been lowered. This circumstance may explain the fact that the radial pulse was so little altered after the administration of the jaborandi. Had sphygmographic tracings been taken of the carotid or of the heart, a greater difference might, perhaps, have been demonstrated.

* Lecorché addnces such cases as proof, among others, that the separation of the water of the urine takes place in the medullary tubes, and the separation of the urea and salts in the glomeruli and convoluted tubes of the cortex.

* Eine Hypothese über den Zusammenhang in welchem die sogenannten üraemischen Anfälle zur Erkrankung der Nieren stehen. Traube, Gesammelte Abhandlungen. Bd. II., p. 551.

## ABSCESS OF THE LIVER FOLLOWING DYSENTERY.—ASPIRATION.

### DISCHARGE OF PUS INTO THE PERITONEAL CAVITY. —DEATH.

BY WM. PEPPER, M.D.,

PROFESSOR OF CLINICAL MEDICINE IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF PENNSYLVANIA.

A. McC., æt. 39, employed in Philadelphia Gas-Works. Has always, until lately, enjoyed general good health, and has always been a sober, steady man. In August, 1878, he was attacked with dysentery, which lasted for three weeks, after which he apparently convalesced. In a few days, however, he was attacked with irregular rigors about noon, followed by fever during the afternoon and evening, and marked sweating at night. This state of affairs continued about one week, when he began to improve; the fever diminished, or ceased, and, although weak, he returned to work. One week later the same symptoms recurred, and he was again confined to the house for a week. He then again improved, and was able to do a little work for four days; after which he was for the third time attacked with an irregular fever of a hectic type.

During most of the above time there had been increasing pain in the region of the liver. In the early

part of November this pain became very severe. It was then chiefly referred to the region of the gall-bladder and the lower part of the liver. Occasionally it extended through to the back, or up towards the right shoulder. A dry cough, attended with some pain, appeared in November. He had marked night-sweats, and lost flesh, strength, and all appetite. He was then treated for typho-malarial and gastric fever.

I saw him first on December 1, 1878, at the clinic of the University Hospital, and found a distinctly increased area of liver dulness, with some fulness of the right chest over the site of the liver. There was also marked tenderness over the gall-bladder and up to the sixth interspace in the line of the right nipple. There was distinct yellowness of the skin, almost amounting to jaundice. The urine was dark, and the stools light yellow. I was satisfied that an abscess of the liver existed, but as the patient was obliged to return home, aspiration could not be performed. Poultices were kept constantly applied, and atropia and morphia were given to check the night-sweats and to induce sleep. There was always an increase of the pain felt upon motion. During the next few days the constitutional disturbance increased markedly.

On December 8th I saw the patient again. The yellow tinge of the skin was then very apparent. The pulse was small and excitable—112 to the minute; the respirations were 27. There was marked impairment of motion over the lower part of the right chest. A careful inspection showed some fulness of the hepatic region, as compared with the left hypochondriac region. The fifth, sixth, seventh, and eighth intercostal spaces on the right side were filled out level.

By percussion, the following results were obtained: the right lobe of the liver was found to extend below the margin of the ribs. In the region of the gall-bladder, especially, there was well-defined resistance over an area of two square inches. The dulness in the line of the right nipple extended upward to the fourth rib. Laterally, it either reached the same level, or extended somewhat above it, towards the posterior border of the axilla. In the sitting posture, the upper line of dulness in front varied very slightly, the line of absolute flatness rising not more than one-half of an inch. The dulness in the axilla fell slightly. Posteriorly, dulness extended up to the angle of the scapula, and complete flatness up to within one inch of that point. When the patient turned on the left side, there was a decided falling in the line of dulness laterally and anteriorly, and posteriorly round to the very vertebral gutter. Percussion showed, however, that in this position there was no depression of the liver below the margin of the ribs. It was thus clear that there was very little, if any, pleural effusion of a liquid character, but that the changes in the level of dulness were chiefly due to the varying degrees of expansion of the right lung. Over the area of flatness there was absence of respiratory murmur and of vocal resonance; but vocal fremitus was obscurely felt downward as far as the upper part of the hepatic area. Posteriorly, there was feeble respiratory murmur, with crackling sounds (dependent upon the plastic pleural exudation), for an inch and a half below the angle of the scapula.

There were no signs of disease in the upper part of the right chest or of the left lung. The heart was displaced upward and toward the left, the apex-beat being in about the position of the left nipple.

Excessive pain was felt in moving or turning. There was tenderness over the region of the gall-bladder, and to some extent over the anterior surface of the liver; but careful palpation showed that the tenderness was by far the most intense over a circumscribed spot in the line of the right nipple and in the sixth interspace.

The smallest-sized aspirating needle was introduced to the distance of one and one-half inches at this point, in a direction slightly upward, and f. ʒ iv. of dark, thick, grumous pus were withdrawn. Some immediate relief was experienced. When the needle was first introduced, it was free to move in the cavity; but, after the pus had ceased to flow, the roughened wall of the abscess could be distinctly felt by the point of the needle.

No larger canula was introduced, because it was thought to be safer to watch the effect of the partial aspiration; and, in case the same symptoms recurred, to repeat it later. Very little, if any, change was produced in the physical signs by the withdrawal of the above small amount of pus, and it was therefore evident that the main collection remained.

The patient slept much better during the following night, and was easier on the next day. On the second day, when I next saw him, he expressed himself as feeling very greatly relieved. There had been some slight return of appetite, and he had slept much better. There was also some reduction in the rapidity of the pulse. The physical signs remained the same, and there was still marked soreness upon pressure at a point in the sixth interspace, somewhat to the left of the point of juncture.

The same evening (Tuesday, December 10th), about eight o'clock, he was seized with a sudden and very violent pain, extending through from the hypochondrium to the back, near the angle of the right scapula. His breathing was oppressed, and he had nausea. On Wednesday morning he was evidently sinking from the shock of the sudden peritoneal inflammation. The pulse was rapid and thready; the breathing hurried and gasping. The belly was distended and tender. Extreme pain was felt over the hepatic region. There was great thirst. The stomach was unretentive. These symptoms persisted, and on Thursday night he died.

At the *autopsy* the head was not examined. Upon opening the abdomen the peritoneum was found to be congested, and there was a considerable quantity of grumous pus, similar to that which had been removed by aspiration, diffused throughout the abdominal cavity. There were not, however, any marked deposits of recent lymph. The omentum was drawn upward, and was found to have attachments, by soft, yellowish lymph, along the line of the lower margin of the ribs. When it was released, the anterior border of the liver was found to project two and one-half inches below the ribs at the position of the gall-bladder. The left lobe of the liver was but slightly enlarged. There was marked perihepatitis with flakes and layers of soft yellow lymph. There was also a considerable quantity of the same dark, grumous pus confined between the diaphragm and the liver. Upon removing the liver, its upper surface showed extreme bulging, due to the presence of an enormous abscess in the right lobe. The wall of this abscess was thin, and it fluctuated upon the slightest touch. It was of a pale grayish-red color, and in one circumscribed point presented a blackish, gangrenous appearance; it was found that perforation had occurred here. The point at which the aspirating needle had been introduced was not visible, but, by compressing the abscess, a few drops of pus could be forced out of a minute aperture which was presumably the point of puncture.

On opening the abscess it was found to be not less than six inches in diameter, and was filled with thick, shreddy pus of varied colors. The wall limiting the abscess was, with the exception of the upper portion, firm and whitish. No minute examination of it could be made. The rest of the liver was softened and pale.

The diaphragm, corresponding to the superficial part of the abscess, was much softened, and tore very easily. Its peritoneal surface was covered with soft, yellowish lymph. There was no appearance of a near approach to perforation of the diaphragm.

Doubtless the tendency was to perforation of the diaphragm, and to the discharge of the abscess into the lung, but the adhesions between the liver and diaphragm were too soft, so that the peritoneum ruptured and the pus discharged between them.

The right lung was closely adherent throughout; the adhesions being comparatively recent, especially over the lower lobe and over the diaphragmatic surface.

The left lung was not adherent save at a few points. Throughout both lungs, which were highly pigmented, were numerous shot-like bodies. Upon section, these were proved to be dry, whitish, caseous, encapsulated collections. Whether these were connected with the abscess, or simply due to his occupation in the gas-works, was hard to determine, though the latter is the more probable supposition.

The heart was healthy, but was pushed to the left and upward; its apex being situated under the site of the left nipple.

*Remarks.*—It is unfortunate that the circumstances under which the patient was first seen made it impossible to aspirate the abscess promptly. During the ensuing week such destructive changes occurred as to render a favorable result impossible. The abscess had already ruptured and a portion of its contents had escaped into the space between the liver and the diaphragm. The adhesions which had formed were too soft to long retain it here, and aspiration secured only a brief period of relief.

The abscess was in this case clearly connected with the preceding dysentery, and was probably embolic in its original character. The irregular and intermittent course of the hectic symptoms in the earlier part of the case is interesting, and perhaps points to different foci of suppuration which coalesced later. The position of the abscess would have made it a favorable case for treatment if its nature had been recognized earlier.

In reference to the recent discussion concerning the frequency of hepatic abscess, I may state that this lesion is undoubtedly somewhat rare.

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Hypodermics of Ether in Sciatica.—Dr. C. G. Comegys claims (*Cincinnati Lancet and Clinic*) that hypodermic injections of ℥ xxx. of sulphuric ether (one night and morning, passing the needle a little posterior to the great trochanter) have *cured* this obstinate affection in his and in others' hands.

Chlorate of Potassa Poisoning.—Half an ounce swallowed by a two and a half year old child, through mistake, gave rise to severe gastritis and acute vomiting, which resulted in death in spite of treatment.—*Allgem. Med. Central-Zeitung*, 1878, No. 99.

Sulphurous Acid in Pruritus Vulvæ is highly recommended by Dr. E. B. Stevens. Applied in its full strength it gives prompt relief.

# Reports of Hospitals.

## GUÉRIN'S COTTON-WOOL DRESSING IN THE PARIS HOSPITALS.

By M. J. HALLORAN,

Élève at La Pitié Hospital.

Service of M. Verneuil.

Paris, France, Jan., 1879.

In this note, suggested by a recent clinical lesson at La Pitié, by M. Verneuil, we do not by any means intend to consider this apparatus in all the numerous applications to which M. J. Guérin has put it, but merely to recall the cases, or at least some of them, in which we have seen it used during the two years and a half that we have been élève in the Paris hospitals.

As is well known, M. J. Guérin insists on perfect occlusion with compression; to obtain this he applies, first, two or three layers of cotton-wool, then a linen band tightly drawn over all, then another layer of cotton, then another band, and so on, until, in a case in which he applied it at St. Bartholomew's Hospital, at London, he used up five pounds of cotton-wool; we confess we have never seen him carry the idea so far in his own service.

The first case in which we saw it applied was in M. J. Guérin's service—a case of bad, complicated fracture of the leg—the patient, a woman, having been run over by an omnibus. The result was excellent; the fever was very moderate, the patient suffered very little, and left the hospital with the fracture consolidated and the wounds healed.

We next saw the apparatus employed several times in the service of M. Gosselin; but it could hardly be called the dressing of M. J. Guérin, for M. Gosselin, like M. Verneuil, being opposed to the doctrine of union by first intention, and fearing the stagnation of pus in the wound, passed a drainage-tube between the flaps, leaving the two ends hanging out between the layers of cotton; through this tube he injected several times carbolized lotions, and as the tubes were often stopped up, the injection remained, in part, and after a few days—it was in midsummer—the odor around the bed was very noisome; but M. Gosselin did not remove the dressing until the fifteenth day. In the interval the temperature had always been moderate, and the patient did not at all suffer. The wound was found suppurating, but the cicatrization had already commenced at the base of the flaps. The complete union in this case was very slow with the carbolized dressing, which M. Gosselin preferred to applying the cotton dressing a second time. It is but just to say that this patient was operated on on account of a white swelling of the femoro-tibial articulation, and that he succumbed shortly afterwards to tuberculosis.

During the vacation, when acting as externe with M. Berger, who replaced M. Gosselin, we saw him apply this dressing frequently, but after the manner of M. Guérin, and leaving it in place also, like him, for about thirty days, without changing, in two cases of amputation: the first, of the forearm, the carpal articulations having been opened by the bite of a horse; the second, of the leg, for prolonged suppuration from the carpal articulations of the foot. In both cases the result was excellent; the fever very moderate; the suffering so little that we saw the first patient walking about, a week or two afterwards, with

his arm in a sling. Both the patients were discharged convalescent, without having suffered from any complication.

M. Verneuil, in his lecture the 17th December, having just applied the apparatus in a case of suppurating arthritis of the wrist-joint, recalled his experience of it in cases of a similar nature. He remarked that its application in arthritis was not at all new; that it differed very little from the apparatus of Burrgraeve, employed very often by Nélaton (Thèse du Dr. Pilate, "De la compression dans les tumeurs blanches," Thèses de Paris, 1868). In the first case of hospital practice to which M. Verneuil had applied this dressing the result was very striking. It was in a case of suppurating arthritis of the wrist which had lasted eight months; every means was tried—injections with tr. iode., with permanganat. potassæ—but without the slightest amelioration; hectic fever set in; the temperature was at 39°-40° (Centigrade) in the evening; and the patient, fearing to die in the hospital, wished to return home, when M. Verneuil, who had just had a success in a similar case in his private practice, applied the apparatus with splints to insure perfect immobility. Three days after this application the temperature had fallen to 37°-38° (C.), the pain had entirely disappeared, and, after renewing the dressing twice during fifteen days, the patient was enabled to return home, coming at intervals of fifteen days for the renewal of the dressing; and after two months nothing more was seen of her. In another case, shortly afterwards, the effect was not less remarkable. It was a young man, already phthisical, who had been confined during three months previously in a prison-cell, and who was brought into the service with suppuration around the tibio-tarsal articulation and in the synovial sheaths of the tendons of the posterior muscles of the leg, with retraction of these tendons. At his entrance hectic fever had already set in; the anorexia was complete; the patient became day by day more feeble, and amputation seemed to offer the only chance of saving his life. M. Verneuil, however, encouraged by the other cases, applied the dressing, and the effect surpassed his expectation; after six days the fever had disappeared, and there was much less suppuration; in three months the patient was considered convalescent, and the retraction of the muscles had entirely disappeared. M. Verneuil has had the same result several times since; but in one case, though the dressing produced at each application an amelioration, the suppuration did not cease, and amputation was found necessary. A somewhat similar case occurred in the service of M. Alphonse Guérin. Those who wish to study the subject farther than the limits of this note will allow us can consult with first the thesis of M. Hervey, Thèse, Paris, 1871: "Applications de l'ouate à la conservation des membres et des blessés," thesis crowned by the Société de Chirurgie of Paris; and also the thesis of M. Blanc: "Pansements ouatés dans les arthrites suppurés," in which they will find at length the two cases of M. Verneuil that I have mentioned.

Dangers of Vulcanized Rubber Nipples.—Dr. Forestier, of Lyons, reports two cases of poisoning in young infants brought up by hand, both of which were probably due to the employment of white vulcanized rubber nipples. The symptoms were analogous to those of poisoning by the sulphide of carbon, and as that substance is employed in the vulcanization of the rubber, it was in all probability the cause of the accidents. One of the cases terminated fatally.

# Progress of Medical Science.

Syphilis in Relation to Marriage.—Some very sensible rules in regard to this matter have been laid down by Dr. A. Fournier, in a lecture delivered at the Hôpital St. Louis.

There are three dangers which a syphilitic man causes by marrying: He may infect his wife, who will suffer not only from the disease, but from abortions; he may transmit the disease to his children; and he may, after marriage, be made loathsome by the disease, or even incapacitated from supporting his family.

In view of these things, it is our duty to advise against marriage, except under special conditions. These conditions, which, if complied with, may make it tolerably safe to marry, are:

1st. Absence of actual manifestations of the disease.

2d. Advanced age of the disease.

3d. A period of immunity since the last outbreak.

4th. A non-menacing character of the disease.

5th. Adequate specific treatment.

The minimum time after infection should be three or four years, and the minimum time after the last outbreak should be eighteen months.—*Phil. Medical Times*, Jan. 4, 1879.

The Elastic Bandage in the Treatment of Aneurisms.—It seems likely that Esmarch's bandage will add very greatly to our means of treating aneurisms. Dr. Weir has collected twenty-one cases of ilio-femoral, femoral, and popliteal aneurisms, mostly the latter, treated in this way. Twelve of these were successful, while the others failed, owing chiefly to the fact that obstruction to the arterial current was not kept up after the removal of the elastic bandage. Upon this point Dr. Weir lays great stress, and states that in it is the gist of the treatment.

In connection with the study of this matter, the question of how long a limb can be kept desanguinated is of importance. In the lower animals the time is six or eight hours. In man the time is longer than has been heretofore supposed. Ischæmia has been enforced for four, five, and in one case fourteen hours without injury. During the compression it is important to remember that the arterial tension elsewhere is increased.

Autopsies have made it probable that coagulation begins in the tumor and extends up several inches into the artery. The arterial clot then becomes organized into fibrous tissue, and for this organization a healthy state of the wall is necessary. Aneurisms with large mouths are perhaps more easily cured by Esmarch's bandage.

As the result of a study of the cases collected, including his own, Dr. Weir recommends a plan of treatment like the following: the limb should be bandaged up to the tumor and above it, but not over it. The patient should stand erect before the upper bandage is put on. Tubing should be applied in the usual manner. The elastic compression may be kept on for two hours, followed by the application of a tourniquet for two hours. If pulsation is still apparent, the elastic and mechanical compression should be repeated until pulsation has ceased. After consolidation of the tumor is secured it is well to moderate the arterial current above the tumor for twelve or twenty-four hours by a bag containing seven or ten pounds of shot.—*Amer. Jour. Med. Sciences*, Jan., 1879.

COLLES'S FRACTURE.—In opposition to the position taken by Dr. Pilcher, Dr. J. S. Wight, of the Long Island College Hospital, maintains that fractures at the base of the radius are due to a combination of forces, of which the traction on the anterior ligament is but a small unit. In all cases, whether due to falls upon the palms, or to forced extension, three distinct forces may be distinguished: the extending power applied to the palm, the pressure of the radius upon the carpus, the resistance offered by the tendons and ligaments on the anterior of wrist-joint. These represent the forces of a lever, of which the fulcrum is the point of pressure of the radius upon the carpus; the long arm, the distance between the fulcrum and extending power in palm; the short arm, the distance between the fulcrum and the insertion of tendons, etc., on the anterior of joint. The pressure of the carpus upon the radius is equal to the sum of the other two forces, and must necessarily have a greater influence than either of them singly in the determination of a fracture. This is proved clinically by the fact that in a certain proportion of cases the line of fracture is between the fulcrum and the insertion of the ligament, whereas, if the fragment were pulled off by the ligament, the line of fracture should be beyond the ligamentous insertion. In one of the cases reported by Dr. Cameron, of Glasgow, the fragment was not completely separated, but was hinged anteriorly, and firmly impacted posteriorly, which should not have been the case if Dr. Pilcher's ligament were the principal cause of the fracture. From his investigation on this subject, Dr. Wight has arrived at the following conclusions: A fracture at the base of the radius may be anywhere within one and a half inches of the lower articular surface; or it may consist of a chipping off of the posterior lip of the articular surface; the fracture may be transverse, oblique, vertical; it may be impacted or comminuted; it is generally caused by the reaction of the resisting surface on which the palm of the hand strikes at the time of the fall, the carpus being driven or pressed against the base of the radius; it may be caused by extension or flexion of the hand on the forearm; muscular contraction must be recognized as an associate cause of importance; an important element in the causation of this fracture is found in the structure of the bone, the seat and direction of the fracture being usually where there is least compact tissue. Special exception is taken to the assertion of Dr. Pilcher, that "the fracture never entails permanent disability," for clinical observation and post-mortem examinations show that there are, and must be, some cases of fracture at the base of the radius, which will inevitably result in permanent deformity and disability.—*The Medical and Surgical Reporter*, November 16th and 23d.

PATHOLOGY OF URETHRAL STRICTURE.—Dr. John H. Brinton presented to the Pathological Society of Philadelphia, six specimens of urethral stricture, accompanying them with short histories of the cases. The attention of the members was called to the manifold causes of death in the respective cases—to wit, inflammation of the prostatic plexus of veins, inflammation of the prostate gland, and prostatic abscess, acute nephritis, pyelitis, multiple abscess of the kidney, extra-prostatic abscess, and tubercular deposits in the bladder and testicle. He remarked that while in most cases the autopsy sufficiently accounted for the fatal result, in the last case recorded, absolutely nothing was developed which threw any light on the cause of the death. The man was operated upon, and in eighteen hours died; whether in consequence of the operation, or simply as a coincidence, it is impossible to say. The period at which death occurred after the operation varied from eighteen hours to thirty-seven days. Urethral fever was present to a greater or less degree in all these cases. His observations on the localities of stricture agreed in the main with those of Sir Henry Thompson. These conclusions were based on an analysis of 132 strictures in 100 cases.—*Medical Times*, December 7, 1878.

TREATMENT OF EARLY PHTHISIS.—In the treatment of early phthisis, attention to the stomach and bowels is scarcely of secondary importance to the treatment of night-sweats. When the tongue is covered with a thick fur it is useless, or nearly so, to give iron and cod-liver oil; for the tongue is the indicator of the state of the intestinal canal, and absorption through the thick layer of dead epithelium cells is well-nigh impossible. Special attention should be given to all drains, such as diarrhœa, or, in the female, leucorrhœa or menorrhagia. All intercurrent disease or accident should be attended to assiduously. Hæmoptysis not uncommonly ushers in the end of a case of phthisis, but, on the other hand, it is often one of the best forms of local bleeding, recovery setting in from that hour. As a matter of clinical experience, slight hæmoptysis in early apical consolidation is usually associated with constipation, and is relieved by acting upon the bowels. When this symptom is associated with cold hands and feet, and the contraction of the vessels of the systemic circulation leads to increased blood-pressure in the lesser or pulmonic circulation, it is well to put the patient to bed, with hot bottles to the extremities, and hot fluids to drink, so as to dilate the systemic vessels generally, and so relieve the pulmonic congestion. The effects of mechanical irritants upon the diseased lungs are not sufficiently appraised. The advantages of a sea voyage, or a residence in the country, are due as much to the fact that the injured lung is not irritated by particles respired along with the air, as to the beneficial effect of improving the general health. Hygienic and dietetic matters should be carefully considered. Proper ventilation and an abundance of out-door exercise are indispensable. The diet should be nutritious and easily assimilable; it should consist of meat-juice in any form, milk and farinaceous foods, and especially the different foods prepared for infants, which are mainly starch partially digested. Alcohol may be taken with the food to aid digestion, and a glass of sound wine or good malt liquor, at lunch and at supper, is often of service; but the constant sipping of alcohol is bad, and the port-wine treatment of phthisis is unjustifiable, where it is not a hollow mockery and the wine a vile adulteration. The use of an opiate linctus, "to be taken when the cough is troublesome," is often followed by the most disastrous consequences, loss of appetite and flesh, constipation, etc. Where the cough is very troublesome, bromide of potassium may be given as affecting reflex action favorably with a minimum of bad after-effects. Hydrobromic acid with spirits of chloroform is effective in relieving cough. When a history of syphilis is present the prognosis is not so grave, the disease being amenable to specific treatment.—*J. Milner Fothergill*, M.D.: *The Practitioner*, October, 1878.

MM. FAUVEL and N. Guéneau de Mussy are retired, on account of age, from the Hôtel-Dieu. Their successors are MM. Empis and Moutard-Martin.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, February 22, 1879.


## OVER-CROWDED ASYLUMS.

It is not a very creditable fact that in spite of investigations, reports, large appropriations, and new and costly asylums for the insane, there is quite as much over-crowding in them now as ever. There are seven thousand lunatics in the New York institutions, and there are proper accommodations for about four thousand. New York city tolerates within its limits an asylum which is essentially unfit, both in location and arrangement, for the treatment of the insane, and which now contains nearly half as many again as it properly should. There have been housed on Blackwell's Island thirteen hundred patients in wards intended for nine hundred. The whole has of course been run by a political machine, assisted medically by such fresh graduates as could be induced to remain a few months for washing and board. And New York is a city whose tender charity does not allow a horse to fall to the ground except under humane conditions.

We are assured, in reports, that this is a very sentimental view of the question, and that everything possible is being done. On the contrary, we cannot discover the slightest evidence that there is to be any permanent relief from over-crowding or any better supply of attendants. The large asylums, to be sure, are increasing their capacity, and in another year will have several hundred more beds. But the insane are increasing also every year at the rate of three and a half per cent., and these new wings and refurbished garrets will soon be filled. In addition to this, the continual enlargement of these already large asylums is but aggravating the misproportions of what is already a deformity.

The Association of Superintendents of Insane Asylums long ago fixed the proper limit to the capacity of an asylum at 250 patients, and recommended 200 as a better maximum. The resolution establishing this limit has been frequently endorsed since. Right in the face of this, however, several large asylums have been built at an extravagant expenditure, and these are now being further enlarged. Meanwhile the problem of the disposition of the insane remains unsolved, while that of their proper care and rational treatment is in a still more hopeless condition.

Fortunately, however, there seems to be developing a tendency which may lead to better things. There is a growing desire on the part of the counties to keep their own insane, caring for them in county asylums. Some such method as this could be made very effective, and we believe that the movement should be encouraged. If necessary, two or three counties could unite in common to build an asylum. In this way the insane could be easily reached and speedily treated. It is found that the per cent. of insane to the population near an asylum is about 1 to 1,000. But as one recedes, the ratio increases, until, at the farthest limits of its districts, the proportion is 1 to 18,000. This shows either that insane asylums are contagious, or that lunatics at a distance do not get treatment. We assume the latter inference, and believe that by a system of smaller asylums, every one could be cared for.

To the objection of a possible increased expense we can say, first, that it is the part of humanity to care for the poor and sick in the best manner possible, and this should be our greatest consideration. On the other hand there might be no increase, but even a decrease in expenditure. Up to a certain point, the large hospitals are more economical; but there is a limit to this, and the very large ones do not save money proportionately. Besides this, with smaller hospitals the cost of transportation will be saved and the increased number of cures from early and judicious treatment will save the great expense of a long life of chronic insanity.

It would be easy, also, to combine a county hospital with the asylum; and the pauper sick, who are now treated by the poorhouse doctor at the regular fees, could receive the best treatment in these hospitals without charge. It is difficult to believe that with the reproach of the present system clearly before the public, some movement in this direction will not soon be inaugurated.

### MEDICAL ETIQUETTE.

There is nothing which is so little understood by the public as the principles upon which medical etiquette is founded. As a consequence the prejudice against the very name is something almost ridiculous. When an anxious patient broaches the idea of calling in another physician, or of asking for a change in medical advisers, he, half in pity and half in fear, apologizes for interfering with professional rules, at the same time he smiles at their absurdity. There is something to him so unintelligible concerning the whole matter of interprofessional dealing, that he is only constrained by courtesy or politeness to countenance what he be-

lieves to be the merest whim. If the patient is anxious to retain his medical adviser, and consultation with some other practitioner is declined, he is very apt to protest in something like this form: "Well, doctor! If I understand you in regard to this medical etiquette, you would rather allow the patient to die than to transgress this arbitrary and unreasonable law." And too often the physician smiles, shrugs his shoulders, and conveys the impression that he would like to oblige the patient's friends if he dared to do so. The truth of it is, the physician has not the requisite amount of moral courage or professional honor to explain the course he takes. Here we think is the root of the difficulty and the real explanation for the undisguised derision with which the public estimate our conventional rules. It supposes them to be arbitrary, unreasonable, and positively detrimental to the best interests of the sick. How can we expect the contrary opinion to prevail under the present circumstances?

Besides the men who appear to be ashamed of the profession to which they belong, there are others who are so constantly straining a point in favor of the code as to make it and themselves ridiculous. The extremists on both sides of the question do the damage. If both would meet upon the common platform of the good of the patient, no one could be dissatisfied. And after all is this not the sole object of all medical etiquette? If it is not, it certainly ought to be. None but mean spirits can take advantage of the situation.

The physician who has the real good of his patient at stake can always act consistently with the code and be on the safe side. If he is afraid or ashamed to explain the point to the sick one, he is either unworthy of the trust placed in him, or he cowardly binds himself to rules which as a free moral agent he secretly despises. Provisions are made in the code for all sorts of emergencies of apparent interferences, so that there is but little if any chance for erring on any other side than that of humanity or common-sense. But how easy it is to explain this to the interested parties and assure them that consultations in the regular way are always the best for the patient, that a full, free, and manly interchange of professional opinion gives him the best chance of having his case thoroughly understood in all its aspects, past and future, gives the best possible assurance against useless repetition of drugs, and the best promise for rational progress in treatment. How few physicians take the trouble to do this, and how often does the profession suffer in consequence.

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### MEDICAL BOTANY.

Of the utility of botany to the medical profession as a body there can be no more question than of its utter neglect by the great majority of the profession in this country. When we state that very few medical men know anything whatever of the botanical characters of the plants employed in medicine, we state a fact which does not redound to the credit of our profession. It is not so in Europe; it was not so here fifty years ago. In the earlier part of the present century botany was taught in the medical schools, and we are mainly indebted to the teachings of those days for our present knowledge of the North American flora. The study of botany gave impetus to original research in the path of therapeutics, as it would unquestionably again, if pursued in our medical schools. The works on medical botany, published from thirty to sixty years ago, as, for instance, Barton, Bigelow, and Rafinesque, long out of print, and rarely seen, are full of valuable and suggestive information. During the past twenty-five years no distinctively American work on this subject has appeared, and those of foreign issue have had but limited circulation in this country.

For this neglect of a science at once so valuable and so necessary to medicine, the medical schools are mainly responsible. True, the lecturer on materia medica still glibly runs over the botanical description of a plant whose medicinal action is under consideration, but he speaks in a tongue quite unknown to nineteen-twentieths of the young men before him. The candidate for graduation is expected to know nothing of botany, and, in truth, he rarely disappoints that expectation.

Is it not about time to change this order of things? If our medical schools are not ready to take such an advanced position as to make some knowledge of botany one of the *requirements* for graduation, will they not at least furnish facilities for its *optional* study? At present the medical student who has not enjoyed the advantages of a college education, has absolutely no chance to learn anything of the science, except by getting a text-book and working it out himself—a process seldom employed. As generally taught in seminaries and academies—when taught at all—it is made as dull and uninteresting as possible, while it might be made extremely fascinating.

The principles of botany are not difficult of attainment, nor would the average student need to spend a great length of time upon it to enable him to identify most of our medicinal plants.

One objection which may be made to the re-introduction of botany into the medical course—that the student has already more than he can attend to—may be answered as all objections to a higher medical education are—*lengthen the course*. Another might be urged, which 'tis hardly worth while to answer—that he who wishes to experiment with our medicinal plants can do so as well without a knowledge of their botanical character as with it. The common names of plants are totally unreliable, the same plant being known by perhaps a dozen different names in as many different localities; and, again, plants appearing

identical to the casual observer are frequently decidedly different, and possessing widely different qualities. Numerous illustrations might be offered in support of this statement were it deemed necessary.

Were the experiment made of teaching botany, say, in the summer course of lectures, when fresh plants can readily be obtained for demonstration, we are sure the result would be not only gratifying, but valuable. And when we have a body of men duly qualified to experiment with our indigenous plants in the fresh state, conducting their experiments with the accurate methods now in vogue, we shall doubtless see many potent and valuable remedies, now entirely in the hands of Homœopaths, Eclectics, and Herbalists, elevated to positions of confidence and esteem in our own materia medica, instead of being briefly described in fine print in the secondary list of the U S. Dispensatory.

# Reports of Societies.

## THE NEW YORK NEUROLOGICAL SOCIETY.

*Stated Meeting, January* 6, 1879.

DR. J. C. SHAW, PRESIDENT, IN THE CHAIR.

### CHRONIC MYELITIS OF THE ANTERIOR HORNS, WITH LATERAL SCLEROSIS. [CASE OF PROGRESSIVE MUSCULAR ATROPHY.]

DR. J. C. SHAW exhibited microscopic specimens illustrating changes in the spinal cord as above mentioned, and gave the history of the case with comments.

### ORGANOLOGY OF THE ISLAND OF REIL.

DR. E. C. SPITZKA made a brief communication upon the above subject, and exhibited the brain of several animals.

He stated that, in order to test Brown-Séquard's proposition—that if there existed psychomotor centres in the cerebral cortex, these should be located in the homologous gyri of different animal species—he had examined and compared the relative dimensions of the island of Reil in a large series of animals, including the elephant, hippopotamus, horse, lion, chimpanzee, orang-outang, several species of rare monkeys, and the seal. He further stated that the statement made in comparative anatomical and physiological text-books—that man was the only animal possessing an island of Reil, completely covered by overlapping convolutions—was erroneous, as the island of the elephant and the anthropoid apes was as completely covered. He found that in an ascending series, beginning with the carnivora and passing through the monkey tribe to man, the island exhibited a perfect parallelism in development with the development and complexity of co-ordinations manifested by the muscles of the larynx, face, tongue, and fingers. It therefore followed that these peripherics found their central projection in and about the island in *those* animals.

But, on comparing herewith the ungulates, such as the hippopotamus, it appeared that the same area might undergo an exuberant development, even though the peripheries in question were rudimentary. A single instance like that, he believed, overthrew Brown-Séquard's proposition; and equally the objection to the experiments of Hitzig, which Brown-Séquard based on this (perfectly gratuitous) assumption, fell to the ground.

DR. W. A. HAMMOND referred to the history of a case which had some pathological relation to the paper read by Dr. Spitzka.

A male patient had right hemiplegia, and absolutely complete aphasia. The clinical history was that of rheumatism, endocarditis, and embolism. Diagnosis of embolism of the middle cerebral artery was made. An unfavorable prognosis was given. Dr. Hammond thought he might improve somewhat with reference to his motor power, but that there would never be any improvement in the faculty of speech, and that he might die very soon.

It was in the spring of 1871 that he saw the patient. A few days ago he received a letter from the attending physician, who informed him that the prognosis which he had given was absolutely faulty in every respect, for the patient was not only alive, but he had not improved in the slightest degree with respect to motor power, although he was able to speak very well, and had acquired a vocabulary of about 500 words within six months.

Such recovery of the power of speech, after the development of complete aphasia, was unique in Dr. Hammond's experience, and it was for the purpose of obtaining an explanation that he related the case. He had seen cases in which persistent effort had been made to instruct aphasic patients, but the progress was so slight that the effort was abandoned. The only explanation which usually would be given was that the opposite side of the brain came to preside over speech.

DR. SPITZKA referred to reported cases in which persons with right hemiplegia and aphasia had learned to write with the left hand, thus showing education of the other side of the brain.

DR. HAMMOND thought that the improvement should have been more gradual, if such was the real explanation.

DR. SEGUIN remarked that he had seen cases of infantile aphasia, in which subsequently the patient talked as well as any one.

Special mention was made of one case in which right hemiplegia, and contraction, and imperfect development of the limbs still existed; yet the girl talked perfectly well, although the aphasia continued complete for a long time.

The explanation that the right speech-tract assumed the faculty of the left, was the one naturally given.

DR. HAMMOND remarked that it was difficult to conceive of such an education in the adult brain.

DR. SEGUIN remarked that the comparatively sudden return of speech might be explained in accordance with the law of development of speech in children; some children came out with quite a vocabulary of words in the course of a few weeks.

DR. HAMMOND remarked that the cases were not analogous, because in one instance the brain was undergoing development, while in the other it was not.

DR. GREY referred to a case, reported by an English writer, similar to that reported by Dr. Hammond. There was a history of right hemiplegia with aphasia lasting for some time, but after the expiration of several months the aphasia nearly disappeared. At post-mortem the entire third frontal convolution and parts surrounding the island of Reil upon the left side were found destroyed, while on the right side

of the brain corresponding portions were perfectly healthy. In that case there must have been a transfer of function from the left to the right side of the brain.

Dr. Spitzka referred to a case reported by a Swedish writer. A dragoon received, upon the left frontal protuberance, a kick from a horse. He was delirious shortly before death, but neither before delirium developed, nor while it was present, was there any symptom whatever of aphasia. At autopsy there was found complete destruction of the island of Reil upon the left side of the brain and all the parts surrounding it; the right island of Reil, the right hypertriculum, and the right anterior convolution were nearly all that remained of healthy brain-tissue in the anterior lobes.

Dr. Grey suggested that recovery in some cases of aphasia might be due to re-establishment of circulation in the convolutions through some of the anastomosing branches of the middle cerebral artery.

### THE DIFFERENTIAL DIAGNOSIS OF NEURASTHENIA—NERVOUS EXHAUSTION.

Dr. G. M. Beard read a paper upon the above subject, which may be summarized as follows: Although neurasthenia was more common in this country than any other form of nervous disease, as yet it had been only slightly studied. The condition to which the term was applied had long been known among the people, and to a certain extent among the profession, under such terms as general debility, nervous debility, spinal weakness, and more accurately and recently by some special symptoms, such as spinal irritation, nervous dyspepsia, cerebral and spinal anæmia and hyperæmia, irritable ovary, irritable uterus, uterine asthenopia (Knapp's term), and sexual exhaustion.

His first paper upon the subject was prepared in 1868, read before the New York Medical Journal Association, and published in the *Boston Medical and Surgical Journal* for April 29, 1869. It subsequently appeared in the first edition of Beard and Rockwell's work upon electricity. That paper was based upon the study of thirty cases. For five years the subject excited but very little attention, but during the last five years a number of writers had treated the subject incidentally, if not elaborately. Among those were Hugh Campbell, of London, who issued a work upon the subject, which amounted in fact to a republication; Dr. Jewell, of Chicago, Dr. Mitchell, of Philadelphia, and also Dr. Goodell, of Philadelphia, in his recent address upon neurasthenia and womb tire, read before the American Gynecological Society. Of late, however, the subject had been studied most systematically and scientifically by Erb, of Heidelberg, who had a chapter on neurasthenia in Vol. XIII. of Ziemssen's Cyclopædia. In that chapter Erb had confirmed the description and analysis of neurasthenia which Dr. Beard had given in 1868, and had added some judicious and valuable observations of his own.

Originally the term neurasthenia included all types of nervous exhaustion; the symptoms coming from the brain and the symptoms coming from the spinal cord. During the last five years he had differentiated the symptoms coming specially from the spinal cord as *myelasthenia*, and those coming from the brain as *cerebrasthenia*. Erb did not make such distinction, but followed, in general, the description given in his original paper. Dr. Beard regarded it as quite important to make a differential diagnosis between myelasthenia and cerebrasthenia, for the hygiene and the treatment of the two conditions was quite different.

### SYMPTOMS OF CEREBRASTHENIA, OR EXHAUSTION OF THE BRAIN.

The symptoms of cerebrasthenia or exhaustion of the brain were: tenderness of the scalp; a feeling of fullness in the ears and head; vertigo; tenderness of the gums; fluctuating disorders of the special senses, such as a morbid subjective smell, noises in the ears, flashes of light before the eyes, *muscæ volitantes;* morbid desire for stimulants and narcotics; deficient thirst; gaping, yawning; congestion of the conjunctiva; tendency to shed tears; mental depression; impairment of memory and intellectual control.

### MYELASTHENIA, OR SPINAL EXHAUSTION.

The symptoms which suggested myelasthenia, or spinal exhaustion, were: local spasms of muscles; local chills and flashes of heat; shooting pains in the limbs; startings and jerkings on falling to sleep; morbid sensations at the bottoms of the feet, as burning or tenderness, vague pains in the feet, podalgia; sexual debility in its various phases; pains in the back, any part of it from the nape of the neck to the tip of the coccyx, with or without the accompaniment of spinal irritation; creeping and crawling sensations up and down the spine; incontinence of urine, paresis of the bladder; feeling of pressure in the chest, with or without ticklishness in that region; heaviness and stiffness of the muscles, simulating rheumatism; great sensitiveness to cold and changes in the weather; hyperæsthesia of mucous membranes, as of the throat, urethra, or larynx; morbid dryness of the skin, or morbid perspiration; dryness of the joints; dilated pupils. There were certain other symptoms, such as nervous dyspepsia, constipation, flatulence, sick headache in all its phases, numbness, hyperæsthesia, insomnia, which manifested themselves both in connection with cerebrasthenia or brain-exhaustion, and myelasthenia or spinal exhaustion.

In myelasthenia, or spinal exhaustion, physical exercise, especially walking, and standing, made the patient worse, and brought on pain in the back.

In cerebrasthenia, or brain-exhaustion, severe, violent and long-continued muscular exertion could oftentimes be well borne. Hence the practical rule of treatment, that in cerebral exhaustion—cerebrasthenia—active muscular exercise in reasonable amount might be allowed and enjoined; while in spinal exhaustion—myelasthenia—relative rest, in some cases absolute rest or only passive exercise, was demanded. A neglect of that distinction was the source of much error in practice, as verified by his experience, for he constantly saw patients who had been advised to exercise, but who should rest; and advised to rest, who should exercise.

### NEURASTHENIA AND ORGANIC DISEASE.

Dr. Beard regarded it important to make a differential diagnosis between neurasthenia and organic or structural disease of the brain or spinal cord. He had been frequently consulted by physicians with reference to themselves for symptoms which were supposed to indicate ataxia or some form of organic disease of the spine or brain, when in reality they only had symptoms of neurasthenia. Some of those medical men were greatly alarmed, and the more they read upon the subject, in German authorities, the more alarmed they were, for in our literature the distinction between neurasthenia and symptoms of organic trouble were not clearly made out.

FOUR POINTS OF DIFFERENTIAL DIAGNOSIS BETWEEN NEURASTHENIA AND ORGANIC DISEASE OF THE BRAIN AND SPINAL CORD.

There were four points in the differential diagnosis of neurasthenia from organic disease:

1. The symptoms of organic disease were usually fixed and stable. Those of neurasthenia and allied states were fleeting, transient, fluctuating, metastatic, recurrent, intermittent.

2. There were certain symptoms of neurasthenia which did not usually appear in organic or structural disease. Of those, mention was made of general or local itching without apparent cutaneous disease; tenderness of the teeth and gums; special idiosyncrasies with regard to food and medicine, which did not exist prior to the illness; morbid desire for stimulants and narcotics; morbid fear in its different phases, agoraphobia (fear of places), astrophobia (fear of lightning), antrophobia (fear of men); likewise sick headache.

3. In organic disease reflex activity was usually diminished, while in functional disease reflex activity was usually increased. To that rule there were some exceptions, as in spasmodic spinal paralysis.

4. Neurasthenia and allied troubles were most likely to occur in those in whom the nervous diathesis predominated.

The characteristics of the nervous diathesis he had frequently described in other writings.

*Neurasthenia was to be distinguished from hypochondriasis or pathophobia, from hysteria, and from cerebral and spinal anæmia and hyperæmia.*

In neurasthenia the anæmia and hyperæmia of the brain and spinal cord were results, symptoms, temporary, intermittent, and not the disease; and it was unphilosophical to call them the disease.

The same was true with reference to oxaluria, a condition often found in neurasthenia.

The doctrine that innervation preceded circulation was a growing one among neurologists. That point was urged in his original paper on neurasthenia. Vulpian's researches upon the physiology of sleep were in harmony with that view. Erb, in his chapter on neurasthenia, also leaned towards that view.

*Neurasthenia was also to be distinguished from nervous syphilis*, which it sometimes simulated in a wonderful way.

Neurasthenia also occasionally simulated in a perfect and interesting way the *symptoms of a common cold*. The chilliness, the positive coldness, the tremor, the heaviness, the soreness, the pain in the back and the limbs, and in some cases the excessive secretion from the eyes and nostrils, all made it hard to determine whether the patient had taken cold or not.

OVERDOSE OF ELECTRICITY.

An overdose of electricity upon a neurasthenic patient might bring on all the symptoms of a common cold, so that the patient might suppose he had taken cold.

Neurasthenia might simulate *rheumatism*.

DIFFERENTIAL DIAGNOSIS BETWEEN NEURASTHENIA AND ANÆMIA.

Neurasthenia was to be distinguished from anæmia mainly by the following symptoms:

Neurasthenia was found chiefly in connection with the nervous diathesis; the patient might be plethoric; the pulse might be full and normal; no cardiac murmurs, no pallor; was common to both sexes, but not so relatively frequent in females; was benefited by remedies which directly affected the nervous system, iron alone being of but little service; recovery was gradual, and occurred chiefly between the ages of fifteen and sixty.

Anæmia, on the other hand, appeared always with the tuberculous, the rheumatic, or other diathesis; was marked by increase of the watery constituents of the blood and diminution of red blood-corpuscles; was found in all periods of life from infancy to old age; was accompanied by small, weak pulse, cardiac murmurs, pallor of the face and lips, less mental depression than was present in neurasthenia; occurred relatively more frequently in females than in males, might be rapidly cured by removal of the cause, and was benefited by iron alone.

The two conditions, anæmia and neurasthenia, were sometimes associated in the same patient.

DIFFERENTIAL DIAGNOSIS BETWEEN NEURASTHENIA AND HYSTERIA.

These two diseases were oftentimes confounded with each other. In hysteria there were usually convulsions, paroxysms, *globus hystericus*, anæsthesia of the epiglottis, ovarian tenderness, attack of general and local anæsthesia, a certain acuteness, intensity, and violence of the symptoms; was usually associated with great emotional activity; occurred most frequently in non-balanced mental organizations, and was comparatively rare in males. In the mental or psychical form it occurred with perfect physical health. Recovery might be sudden under purely emotional treatment.

In neurasthenia, on the other hand, there were no convulsions or paroxysms; no *globus hystericus*, no anæsthesia of the epiglottis; there might be ovarian tenderness, often was, but it was not so common as in hysteria; the attacks of local or general anæsthesia were not so common; the symptoms were more moderate, quiet, subdued, passive; often occurred in well-balanced intellectual organizations; very common in males; always associated with physical debility; recovery was never sudden, but always gradual.

Dr. Beard agreed with Erb that the disease needed a more systematic and careful study than it had received. It was very common, was increasing in frequency, and was the cause of a great deal of real distress. He then read the history of a number of cases which illustrated the symptoms mentioned. In some of those the diagnosis of ataxia had been made.

The Society then adjourned.

## WEST CHICAGO MEDICAL SOCIETY.

*Regular Meeting, December* 9, 1878.

THE PRESIDENT, DR. BRIDGE, IN THE CHAIR.

(Special Report for THE MEDICAL RECORD.)

LUMBO-COLOTOMY FOR CANCER OF THE RECTUM.

DR. J. H. SALISBURY read the history of a case that had recently occurred in Cook County Hospital. The patient was an English sailor, thirty-five years old. He had passed blood and slime with his stools for two years; had been in hospital at Buffalo for "chronic diarrhœa," and, within a year, had been in the Marine Hospital at Chicago, where the true character of his trouble was discovered. From a year before his death he had frequent pain in the rectum. After leaving the latter hospital he took injections of carbolic acid and glycerine, which apparently gave him some comfort. He came into Cook County Hospital July 9, 1878. For a week he had had anorexia and swelling, and

more pain in the abdomen, and the dejections of slime and blood were frequent. He had lost fifty pounds in weight in two years. The rectum was obstructed by a projecting, hard, cancerous mass; the opening through or past this mass was so small a catheter would not pass. No fæcal evacuation had taken place for nine days. The necessity being pressing to give the man some relief from the suffering due to the fæcal accumulation, Professor Gunn, on July 15th, performed colotomy. An incision five inches long was made through the abdominal wall, "running from a point two inches above the anterior third of the iliac crust, obliquely upwards and backwards." On the colon being exposed, two ligatures were passed around it, and the gut divided between them. The cut ends were then stitched to the external opening. Recovery from the operation was prompt. Thereafter fæcal matter was regularly passed through the artificial opening, and there was no longer suffering from any accumulation. A month later the patient began to pass more blood and slime, with some shreds of tissue by the rectum, and to have more pain. He died of exhaustion November 11th. Two weeks before death œdema of the left leg came on. From October 18th there had been difficulty in passing urine, and the quantity of the fluid had been scanty.

At the autopsy it was found that the whole peritoneal surface was covered with "thousands of fine, white, cancerous nodules, varying in size from that of a mere dot to that of a pea." The artificial anus was found to open into the colon at a point not covered by peritonenm. The rectum and sigmoid flexure were greatly distended with cancerous infiltration; indeed the latter was everywhere throughout the pelvis. The pelves of the kidneys were distended, and the kidneys enlarged from hydronephrosis. The openings of the ureters into the bladder were closed by cancerous infiltration. The specimen was exhibited.

A discussion of the case and of the subject of colotomy for relief of intestinal obstruction then ensued, in which several members took part.

Dr. Salisbury remarked upon the easy recovery from the operation in this case, and the great relief from distressing symptoms which the patient enjoyed afterward. Death must have ensued within a very few days if the operation had not been performed.

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*Regular Meeting, January* 13, 1879.

The President in the Chair.

Dr. E. L. Holmes read the report of a case of tubercle of the choroid in a case of general miliary tuberculosis. The specimen was found in a post-mortem examination made by Dr. Chr. Fenger at the County Hospital. Dr. H. thought this was the first instance in the North-west where a physician at an autopsy had examined the eye for tubercle of the choroid to verify the clinical fact that the choroid is often involved in acute miliary tuberculosis.

The patient was moribund when brought to the hospital, and no history could be procured. Nearly every organ of the body was infiltrated with miliary tubercle. The man was apparently about thirty-five years old. Eight miliary tubercles, perceptible to the naked eye, were found in the posterior half of the choroid.

The choroid was, he said, a favorite locality for the development of miliary tubercles. These bodies would vary in size from one-third to two and one-half millimeters in diameter, and they were usually deposited upon the posterior portion of the choroid, so that they might be perceived by the aid of the ophthalmoscope during life. In cases of deposit of cheesy masses in the lungs and abdomen, tubercles would not be found in the choroid. If tubercles are discovered in the choroid it was nearly certain they would be found elsewhere in the body. So far as records state, there were no subjective symptoms produced by tubercles in the choroid. Theoretically there should be distorted vision.

Dr. W. T. Montgomery asked if careful observations had been made to test the sight of patients with tubercle of the choroid.

Dr. Holmes replied that he thought not. The patients had been generally too young—as children with tubercular meningitis—or they were, if adults, too near death when the tubercles had been discovered in the eye to make careful tests of the sight very likely or even possible to be made.

The question of the relation of miliary and yellow tubercle to each other being raised by a member,

Dr. W. T. Belfield remarked that it was held by some of the later pathologists that miliary tubercle was due to the absorption of caseous matter from a deposit of this material somewhere in the body following an inflammation. The older view, still held by some, had been that the yellow is always due to a degeneration of the gray tubercle.

Dr. H. M. Lyman said he did not think those who claimed miliary tubercle was due to the infection of the system by caseous matter had proven their point. It was a plausible theory, and had some facts that might look in its favor. But that caseous matter was found in the dead body, surrounded by a plentiful crop of miliary tubercles, did not prove the point, for the cheesy substance itself might have been preceded by miliary deposits, of which it was the rapid degeneration. In that case both kinds of material would be due to one and the same cause. It was almost never possible to say positively that caseous matter deposited in the midst of a mass of inflamed tissue had not been preceded by a rapid deposit of miliary tubercle that as rapidly had gone into degeneration. Degenerative changes often went on in a diseased body very rapidly, and made parts appear very differently which had been alike, and he thought we should be cautious how we attributed one morbid condition to the effect of another.

The subject was further discussed by Dr. L. H. Horcourt, the President, and others.

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## NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, January* 8, 1879.

Dr. J. C. Peters, President, in the Chair.

### LUMBO-COLOTOMY—INTRACTABLE STRICTURE OF THE RECTUM.

Dr. J. W. Howe exhibited a patient upon whom he had performed the operation for lumbo-colotomy, four years previously, and gave the following history of the case:

Rosa Nott, aged 51, was admitted to St. Francis' Hospital, February 23, 1875. For a period of twelve years she had suffered great pain on defecation, and was compelled to use injections and cathartics to procure a movement from the bowels. Pus and blood were often mixed with the fecal matter. Two operations, the nature of which was unknown, had been performed before she came to the hospital. Upon examination, the rectum was found to be occupied

by large ridges and bands of fibrous tissue, between which were deep and irregular ulcers. The index-finger could be passed into the rectum about three inches. At this point the stricture was much smaller, and the tip of the finger could not enter. The vagina was also closed by fibrous adhesions. The patient was in constant pain. No movement could be had without the use of oil and warm water injections. Blood and mucus were always mixed with the fecal matter. The patient was very much emaciated, and unable to move about. Attempts were made to heal the ulcers and dilate the stricture, but without avail. As it was evident that the woman was sinking rapidly, the descending colon was opened by an oblique incision, four inches in length, extending from the lower border of the last rib downward and forward two inches beyond the centre of the iliac crest. The gut was reached without difficulty, though an attempt was made to distend it by injecting air or water. The edges of the wound in the intestine were united to the integument in the usual manner, and a piece of wax candle with a ligature through its centre, was inserted and fastened in the opening to prevent prolapse. Two very large and fetid evacuations took place through the false anus within six hours after the operation. The relief afforded was complete, and though an attack of erysipelas retarded the healing of the wound, recovery was complete in two months, and the patient left the hospital in excellent condition. For two years afterwards the patient suffered some inconvenience from prolapse of the gut. Small quantities of fecal matter passed through the rectum as well as through the false anus.

A period of twelve months has now elapsed without the slightest prolapse. The rectum has been completely closed, and all the fecal matter has been evacuated for the past six months through the opening in the colon. The general health of the patient is good, she is free from pain, and is able to work fourteen hours each day, making pants at fifty cents per pair.

### OSTEOPHYTIC RIB.

Dr. S. Caro presented a rib, with osteophyte attached, removed from an Italian slave who died on Blackwell's Island of pneumonia of left lung. The exostotic growth was in the situation of a previous fracture of the bone, and the two circumstances appeared to be related to each other as cause and effect.

### ULCERATION OF INTESTINE IN THE THIRD WEEK OF TYPHOID.

Dr. Beverley Robinson presented a specimen of intestine removed from a man who died of typhoid fever in the third week of the disease. The points of interest were the existence of intestinal lesions at that period, and without diarrhœa, also a degeneration of the muscular coats of the ileum at different points.

### ARTICULAR OSTITIS—CURIOUS CURVATURE OF LOWER END OF FEMUR—AMPUTATION.

Dr. Keyes presented the lower end of the femur with the knee-joint, tibia, etc., taken by amputation from a boy of eleven years. The patient had sinuses, which had existed a long time between the hamstring tendons and above the knee in front, all leading to a movable sequestrum in the lower end of the femur. Abscesses had existed so long in this region that the customary deformity had occurred by contraction of the posterior muscles of the thigh, namely: flexion of the leg upon the thigh, as if by the customary partial backward dislocation of the knee. The knee-joint had never shown signs of inflammation, but appeared to be the seat of fibrous anchylosis.

Dr. Keyes, with Dr. Van Buren in consultation, removed the sequestrum from the lower end of the femur posteriorly. Then, recognizing that the shaft of the femur at its lower end with the involucrum were curved, so that the articular surface of the lower end of the femur looked nearly backwards, he extended the leg and cracked the involucrum, hoping thus to straighten the limb. The attempt, however, proved ineffective.

The patient did badly after his operation, and a continuance of the contraction of the hamstring muscles increased the curvature of the lower end of the femur so that amputation in the middle third was decided upon. The operation was done with long anterior flap. The patient made a good recovery.

The specimen was exhibited to show the curious effect of the constant contraction of the hamstring muscles upon the softened and inflamed bone and involucrum, at the lower end of the femur above the line of epiphyseal cartilage, which was clearly evident in the line of section of the bone, between the condyles.

The curvature of the femur was so great that the axis of the centre of the articular surfaces of the condyles was thrown backwards, nearly 45° from the natural direction. There was very little posterior dislocation of the tibia, the deformity customarily due to this dislocation having been produced by the above-mentioned posterior curvature of the femur.

Dr. Keyes alluded to an article by Volkmann (*Berliner klinische Wochenschrift*, No. 50, Dec. 14, 1874, p. 629, with woodcut, a copy of which was produced), wherein it is claimed that in cases of inflammatory disease about the knee-joint, where contracture of the posterior muscles occurred, the tibia was drawn away from the articular end of the femur, and consequently the condyles, relieved from the accustomed pressure of the tibia, grew forward in an egg-shaped manner, while the lateral ligaments became relatively posterior in the joint, making reduction mechanically impossible without rupture of both lateral ligaments.

This condition, which it was claimed obtained in all cases, was shown by Dr. Keyes's specimen to be not uniform. The continued action of the hamstring muscles is capable of twisting backwards the whole knee-joint, and with it the lower end of the femur, provided the bone be inflamed and softened above the line of the epiphyseal cartilage. No egg-shaped prolongation of the condyles forward was present in this case.

### MICROSCOPIC ANATOMY OF THE HUMAN TEETH.

Dr. C. Heitzmann presented microscopic specimens of human teeth, both in normal and carious conditions, and remarked as follows: The study of the minute anatomy of the teeth was done last year by C. F. W. Bödecker, in my laboratory, and the results obtained may be considered as a new departure in odontology. Nobody ever could have doubted that a tooth is alive as long as it is in close connection with the jaws; but all former examiners have failed in demonstrating the living matter, because of the wrong method applied, viz., grinding dry teeth. Through new methods B. succeeded in discovering: (1) that the dentical canaliculi contain fibres—first seen by Tomes—which are formations of living matter; these fibres are beaded, and send numerous lateral offshoots into the basis-sub-

stance between the canaliculi, where a minute network of living matter is established, the meshes being filled with glue-giving basis-substance, infiltrated with lime salts. (2) The enamel contains fibres of living matter between the rods, and the latter themselves are pierced by a network of living matter also. Between the rods are seen narrow interstices, invariably traversed by delicate thorns, the uniting threads of living matter. (3) The cementum is fully identical with bone; its lacunæ hold protoplasm, the branching and uniting offshoots of which traverse the basis-substance, thus establishing a minute network of living matter throughout the whole basis-substance.

The process of caries of the teeth has been studied in my laboratory by Dr. Frank Abbott. The results are that caries is first a decalcification, afterwards a reduction of the tissues of the tooth, the dentine, enamel, and cementum, whereby the basis-substance is liquefied and medullary elements, the embryonal, forming bodies of the tissues simply reappear. No further new growth occurs from these elements; but they become disintegrated and replaced by a new growth of micrococci and leptothrix. These results are in full agreement with observations made by myself in avascular tissues, especially in cartilage, where the lesion, though produced by intensely irritating agents, viz., hot iron, did not lead to an inflammatory reaction, if cartilage was injured alone.

### PERFORATING ULCER OF THE DUODENUM AND SUDDEN DEATH.

Dr. Loomis presented a specimen of perforating ulcer of the duodenum, removed from the body of a gentleman who died suddenly on the 21st of September, in the Chambers Street depot of elevated railroad. The Coroner gave the cause of death as heart disease. Four days after death, the body being on ice, Dr. Loomis was asked by the wife of the deceased to examine the latter and see if he was really dead. There was no doubt of death, but considerable doubt as to the cause of death. This fact was stated to the widow, and an autopsy was the result. The examination was made by Dr. Drake in presence of Drs. Loomis and G. A. Peters.

The deceased, for twenty years, had been the subject of severe attacks of gout, but rarely summoned a physician for relief. He had found that White's pills (calomel, aloes, ext. colchicum, and ipecac, each one grain) served his purpose. He never had any deformity of the joints, nor evidence of deposits within the joints. There was a slight deformity of the joint of great toe. With the foregoing exception he enjoyed good health until two years ago, when dyspeptic symptoms showed themselves. He accordingly consulted his family physician, who treated him for chronic gastric catarrh. He complained of pain in the epigastrium, especially after eating. He lost flesh quite rapidly. Last May he consulted Dr. Loomis for vertigo and palpitation. The heart was found moderately enlarged, but there were no valvular lesions. In consequence of the presence of dyspepsia, the loss of flesh, and a peculiar paleness of the skin, associated with the previous history, a diagnosis was made of gouty kidney, and the patient was recommended to spend the summer at the Hot Sulphur Springs. The urine was examined but once, and no casts nor albumen were found.

On the morning of the day of his death the patient was cheerful and ate a hearty breakfast, walking a distance of one block to the elevated road. Death appeared to take place instantly.

At the autopsy the cerebral sinuses were found engorged, the arteries at the base of the brain atheromatous and diminished in calibre, with punctate extravasations in the neighborhood. No softening anywhere; lungs were normal. The left side of the heart was enlarged, the ventricular walls thickened, and the cavity of left ventricle slightly increased. The aorta was extensively atheromatous throughout, and its thoracic portion apparently considerably dilated. The kidneys were diminished in size, capsule adherent and thickened, showing gouty lesion in its early stage. The stomach was increased in size, and filled with undigested food. Its walls were considerably thickened, especially at its pyloric extremity. Its mucous membrane was pigmented, and one or two points were evidences of recent extravasations. The pyloric orifice was somewhat diminished in size. The commencing portion of the duodenum was thickened, and about an inch from its commencement there was an ulcer about the size of a twenty-cent piece and oval in shape, and at its bottom was a button-hole slit opening into the peritoneal cavity, and giving exit to a considerable quantity of digested material. The peritoneum, in the neighborhood of the perforation, was somewhat thickened, while the surrounding mucous membrane within the duodenum was denuded. The liver was normal in size and appearance, and the spleen was slightly enlarged. The cause of death was charged to the shock which occurred at the time of rupture. In conclusion, Dr. Loomis stated that perforating ulcer of the duodenum was not common.

Dr. Peters stated that but ten cases of this lesion appear in the records of the Society.

Dr. Loomis remarked that one authority stated that but two cases of the sort were met with in thirty thousand autopsies.

Dr. Keyes asked if the patient had suffered from syphilis, and being answered in the negative, referred to the following case:

A patient suffered from symptoms of syphiloma of rectum, which finally yielded to a prolonged mixed treatment. In the mean time he began to have gastro-intestinal symptoms and intercurrent diarrhœa. For the purpose of being treated for the latter, he came from Philadelphia to this city. Immediately after arriving at the hotel he was seized with symptoms of collapse, from perforation of the gut, and died within twenty hours. He had black vomit ten or fifteen hours before death. At the autopsy the perforation was found in the upper part of the small intestine. Numerous pigmented cicatrices, throughout the small intestine, with adherent peritoneum, marked the site of previous ulcerations.

Dr. Peters referred to a case of very extensive ulceration of the colon, connected with gout. This condition had lasted for thirty years.

Dr. Loomis did not think that the perforation in his case had anything to do directly with the gouty diathesis. He supposed that the ulcer was simply the result of obstructed circulation at that point. One peculiarity of the case was the suddenness of death.

Dr. Briddon had a case which lived for twenty-four hours after perforation occurred.

Dr. Stimson presented a specimen of extra-capsular fracture of femur.

After which the Society went into Executive Session.

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A Medico-Legal Point.—Dr. Gélé asserts that the tympanic cavity of a fœtus at term is filled with a gelatinous fluid. If the child have breathed an hour or two the tympanum shall be found to contain air.—*Med. Press and Circular.*

# Correspondence.

## CONTINUOUS EXTENSION IN SPINAL CURVATURE—A QUESTION OF PRIORITY.

To the Editor of The Medical Record.

Dear Sir:—In the last number of your paper, in the report of the Stated Meeting of the Medical Society of the County of New York for January 27, 1879, Dr. John A. Wyeth read a paper upon "The Treatment of Spinal Curvature by Continuous Extension," and gave the history of an illustrative case. His apparatus consisted of a plaster-of-paris jacket made "in two segments which nearly came together at the point at which the lesion was situated."

Into each jacket, while it was being applied, were fastened perforated zinc plates, and in the centre of these were fastened strong iron staples, which were connected—the lower with the upper by racheted bars, which could be lengthened or shortened by a key. With such an apparatus, Dr. Wyeth states, that if extension and fixation were the indications, he thought they could be constantly maintained, etc., and, at the conclusion of the able discussion which followed, remarked that it was scarcely possible to found a dynasty with one subject, nor could he hope to establish a new principle in surgery upon a single success. With regard to the efficacy of the principle, I will say more when the proper opportunity comes for publishing the cases already treated, the question at present engaging me being one of *priority*.

I have no wish to rob Dr. Wyeth of any of the laurels which are laid at his feet as the discoverer "of a new principle in surgery;" but my object in writing to you to-day is to establish, beyond the question of a doubt, that Dr. Wyeth *was not* the first in the profession to establish this principle. The patient for whom Dr. Wyeth constructed his first splint, came "under his observation in April, 1878." Two solid plaster-of-paris jackets were applied, each consuming several weeks' time before the apparatus described above was put on; so that we may fairly deduce the latter part of May as the time for his first application of an apparatus for producing fixation and extension. This idea of combining immobility and extension in the treatment of disease of the lower part of the spine, occurred to me in January, 1878, about four months previous to Dr. Wyeth's application.

On January 10, 1878, I filed with Mr. Stohlmann, of the firm of Geo. Tiemann & Co., New York, a drawing of a plaster splint composed of two segments, one above and the other below, the seat of disease, held together by brackets composed of perforated zinc plates imbedded in the plaster and connected by racheted bridges to allow of *extension* and *fixation*. In February, 1878, I wrote out and illustrated myself, a concise essay, applying this principle of extension, fixation, and exposure, to every joint of the body, including the intervertebral articulations, and submitted it to Drs. Ellsworth Eliot, Frank Kinnicutt, and Chas. McBurney, of New York, on the 15th of that month, as a competitive essay for the College of Physicians and Surgeon's Alumni Prize. This was not awarded, as the merits of the principle were not sufficiently tested to admit of its recognition by so high an authority. In no way altered or changed, the pamphlet, for so it soon became, was placed in the hands of Tiemann & Co., the 6th of March, for publication, simply to establish priority for its principles. Experience now demonstrates this to have been a necessity, and the intention was to have given the journals articles from time to time when a sufficient number of cases were collated. This pamphlet comprises 22 pages, and is illustrated by 33 engravings, and was issued from the printer's before Dr. Wyeth began to apply the principle. It has had a large distribution, and I have the original manuscript which was submitted to the aforesaid doctors in February, and which has not been changed in the least by the printer.

From pages 2, 3, and 4, I clip the following paragraphs:

"Adjustable Brackets.—Zinc.—This is used in two forms. The first is short and broad (Fig. 1), of the thickness ordinarily used under stoves, etc., so

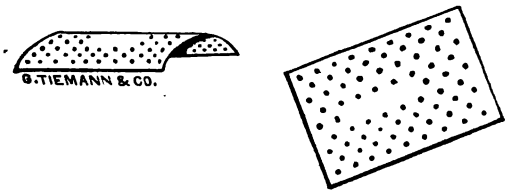


Fig. 1.

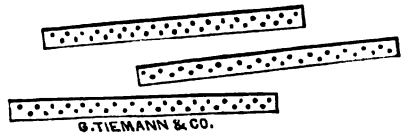


Fig. 2.

punched that the jagged edges of the perforations will be elevated above the surrounding surface, and thus allow the plastered bandage to hold it in place; and is used to form the terminal plates of the bracket, the special uses of which will be more fully detailed hereafter.

"The second form consists of long, narrow, thin strips, perforated, and is used when greater strength is required, as they hold the bandage, and are in turn held by the bandage so securely as to prevent displacement (see Fig. 2).

"Rachets.—Either of two rachets may be inserted into the bridge for purposes of extension. The more simple is that devised by the writer, and consists of two overriding flat strips, provided with slots down the middle, in which two thumb-screws are placed to hold them together, as shown in Fig. 3. They can be so gradu-

Fig. 3.

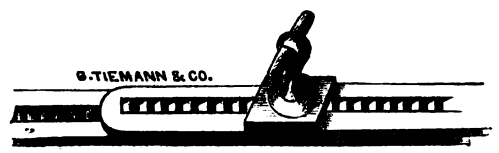


Fig. 4.

ated as to indicate the amount of extension employed, and by the removal of one of the screws a false joint is produced, which may be placed at any point along the slot.

"The second ratchet was devised by Mr. F. A. Stohlmann, and is exact without being complex. It consists of two overriding flat strips, each provided with graduated slots, one strip on one side of the slotted space being dentated and the other strip on the other. A screw, fitted with a cog sufficiently deep to engage both, is now placed in the centre, so that by simply turning the screw the bridge is either lengthened or shortened (see Fig. 4). The writer modified this by introducing a dove-tailed connection between the two strips, which allows them to slide easily upon each other and yet prevents displacement (see Fig. 5). From pages 20 and 21, the ensuing paragraphs, which entirely cover the applications of the principle Dr. Wyeth claims as original, are copied verbatim. There is a difference in the form of ratchet used for extension, but the principle for which we both contend is the same, although my paper passed into the critic's hands one year before his.

FIG. 5.

"*Second condition.*—When the lower dorsal and lumbar vertebræ are involved.

"*Requirements.*—1st, exposure; 2d, immobility; 3d, facilities for extension or retraction; 4th, relief from the weight of the parts above.

These are met by the employment of plaster-of-paris bandage and either of two brackets devised by the writer.

"The first is composed of two zinc plates, perforated, firmly riveted to and connected by a strong strip of vulcanite, provided with a ratchet, and raised above the surface in the centre (see Figs. 6 and 7).

"The second is like the first, except that two ratcheted strips are provided instead of one, and possesses the advantage over it of increased strength and the avoidance of the vertebral projection (see Fig. 8).

FIG. 6.

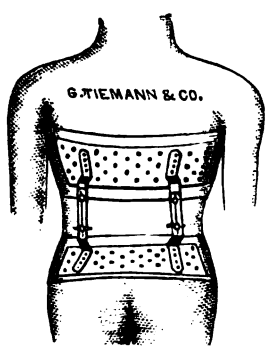

FIG. 8.

"If the deformity is great, it will be necessary to suspend the patient during the application of the plaster, which is laid around the chest above the site of the disease and around the pelvis below it.

"When it has set, the bracket is applied, secured with fresh turns of the plastered bandage, and finally the whole surface is neatly covered with bleached muslin rollers, and the degree of extension adjusted by the ratchets.

"The practice of encasing the waist in plaster from the hips to the axillæ (well known as Sayre's method) is superior to most of the braces in use on account of its *immobility* and the *ease* with which it is carried by the patient, even for a prolonged time, the weight being so well distributed.

"Its *chief disadvantages* are:

"1st. Impossibility of ascertaining the progress of the disease until the splint is removed.

"2d. Impossibility of graduating the local pressure.

"3d. The patient's form is obliged to remain in the position it assumed during the application of the plaster until the splint is removed.

"The various braces, on the contrary, do not produce sufficient immobility without causing severe and unequal pressure upon some of the most prominent points of the trunk, but they possess the advantages of being *more easily regulated* and of allowing *inspection* of the diseased region.

"By using the plaster-of-paris bandage, and the brackets originated by the writer, we are enabled to combine the advantages of the two, viz.:

"1st. Immobility.

"2d. Exposure.

"3d. Facilities for extension or retraction, and yet avoid the disadvantages of each used singly."

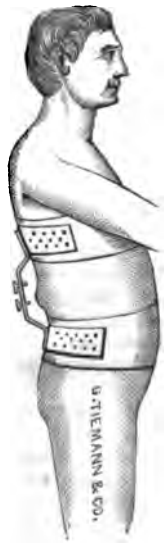

FIG. 7.

These illustrations show the brackets as applied to the plaster base before being secured in position by the plaster bandage, or covered by the external layer of bleached muslin.

In conclusion, let me state that I am personally acquainted with Dr. Wyeth, and know him to be a gentleman of rare acquirements and scholarship, and feel perfectly assured, had he known the true state of the case, that he would have fully accorded me the priority I claim.

Very truly,

CHAS. F. STILLMAN, M.D.,
*Curator St. Francis' Hospital, N. Y.*

PLAINFIELD, N. J., Feb. 12, 1879.

## FREE PHOSPHORUS INVARIABLY AND NECESSARILY CHANGED TO HYPOPHOSPHITE BEFORE ABSORPTION.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—It is claimed that the chemical changes occurring to substances after entering the body cannot be followed out intelligently owing to the complication caused by the modifying influences of vital and functional action, the presence of a multitude of substances, and the changed scene of action as compared to the laboratory, rendering it impossible to note changes as they occur, all of which, as a rule, with some exceptions, is doubtless true.

One exception to this rule I believe to be the changes undergone by free phosphorus from the time of its introduction into the stomach until by absorption it leaves it. My reasons for thus excepting phosphorus during the period mentioned are:

That it is an element incapable, primarily, of chemical action, except in certain well-known directions, which change is a necessity with it as a preliminary step to further combinations.

The first change that occurs must be that it unites with something else, because, being an element, it is itself ultimate—that is, cannot be subdivided into two or more substances; it therefore exerts single elective affinity—its strongest affinity is for oxygen.

Having proceeded thus far, I will state my reasons for the conclusion heading this paper.

Solutions of phosphorus are precipitated in the stomach previous to assimilation.

Water precipitates phosphorus from its solutions when it mixes with its solvent.

Therefore phosphorus must be precipitated from its alcoholic solution by the aqueous character of the stomach secretions.

Phosphorus dissolved in ether, if given in this form, is left by the evaporation of the solvent; and the oleaginous solution, having undergone pancreatic emulsification, is chemically changed by that process to a condition which admits of union with aqueous secretions in any proportion, and as emulsification must have taken place before fats can be absorbed, the phosphorus, but sparingly soluble originally in the oil, must be precipitated when the oil is not only emulsionized, but combined with aqueous secretions at the time of assimilation; hence phosphorus, even if given in solution, reaches the condition of substance in the stomach before absorption can take place.

Phosphorus being insoluble in stomach juices is incapable of endosmosis until by chemical change it is rendered soluble.

Its natural and strongest affinity being for oxygen, an atom of phosphorus (P) unites with an atom of oxygen (O), two molecules of water from the stomach secretions (2HO) now unite with it, and the result is 2HO, PO (hypophosphorous acid); and as the free acid cannot exist in the presence of bases without union, and as such bases are always present in the stomach, this union occurs naturally, and a hypophosphite is produced, affording the first soluble condition of the phosphorus originally given—necessarily in very small proportion, from the limited quantity of phosphorus ($\frac{1}{100}$ to $\frac{1}{10}$ grain) tolerated by the patient.

During the oxydation of the phosphorus in the stomach, phosphoretted hydrogen is given off (a result always occurring during the primary oxydation of phosphorus), and this having an avidity for water, is taken up by stomach juices, and being then in a condition favorable to such action, is absorbed.

This accounts for the *constitutional* toxic action of phosphorus, evidenced by hæmatomata upon the heart, pleura, liver, kidneys, etc.—for the odor of phosphorus pervading the body of a person poisoned by phosphorus, and also for the peculiar "match-like" eructations complained of by patients when taking free phosphorus.

I am very respectfully,

R. W. GARDNER.

170 WILLIAM STREET, N. Y., Jan. 16, 1879.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 9th to February 15th, 1879.*

KINSMAN, J. H., Capt. and Asst. Surgeon. His extension of leave of absence granted Dec. 23, 1878, from Headquarters, Div. of the Atlantic, further extended one month. S. O. 36, A. G. O., February 13, 1879.

LAUDERDALE, J. V., Capt. and Asst. Surgeon. To report in person to the Commanding General, Dept. of the South, for assignment to duty. S. O. 33, A. G. O., February 10, 1879.

DR. A. C. RANKIN reports (*Chicago Med. Jour. and Exam.*, Dec., 1878) a case of puerperal convulsions, attended by rupture of the uterus and recovery.

# Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending February 15, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| Feb. 8, 1879. | 0 | 6 | 198 | 1 | 1 | 61 | 0 | 0 |
| Feb. 15, 1879. | 0 | 3 | 207 | 3 | 3 | 63 | 0 | 0 |

PHILADELPHIA APPOINTMENTS.—Dr. W. W. Van Valzah, late resident at the Philadelphia Hospital, has recently been appointed one of the Attending Physicians to Jefferson Medical College Hospital in the place of Dr. John B. Roberts, who resigned to take charge of the Philadelphia School of Anatomy.

Dr. Charles Baum was appointed house interne at the Pennsylvania Hospital, at the last meeting of the Board of Managers, to fill the place of Dr. Henry Middleton Fisher, whose term of service had expired.

At the meeting of the Board of Managers of the Philadelphia Asylum for the Deaf and Dumb, on Wednesday evening, Feb. 5th, Dr. J. Minis Hays, a member of the board, and assistant editor of *The American Journal of the Medical Sciences*, was elected to fill the position of Attending Physician, formerly held by the late John B. Biddle, M.D. The other candidates for the position were Dr. Samuel Ashhurst, formerly attending surgeon to the Episcopal Hospital; Dr. Wm. B. Atkinson, Permanent Secretary of the American Medical Association; and Dr. Oscar Allis, Attending Surgeon to the Presbyterian Hospital. The salary in connection with the position is some $600.

At the meeting of the Household Board of Directors of Girard College, held on Friday evening, Feb. 9th, the name of Dr. Thomas B. Reed, Attending Physician to the Presbyterian Hospital, was recommended as successor to the late Dr. J. B. Biddle, as Attending Physician to Girard College. The candidate recommended by the above board is generally elected to the position by the Board of Guardians of the City Trusts, which meets on Feb. 12th. The salary of the Attending Physician is $600. The other prominent candidates were Dr. Wm. H. Parish, Attending Obstetrician to the Philadelphia Hospital; and John J. Reese, M.D., Professor of Medical Jurisprudence and Toxicology in the Department of Law and Medicine in the University of Pennsylvania.

The last candidate who has announced himself in connection with the vacant chair of Materia Medica and Therapeutics at Jefferson Medical College, is Dr. James Darrach, of Germantown. The appointment will not be made until late in the spring.

DR. H. T. HANKS, of this city, has been elected Corresponding Member of the Gynecological Society of Boston.

SALICYLIC ACID A BAD MOUTH-WASH.—Dr. Buch, of St. Petersburg, finds that even a weak solution of salicylic acid is injurious to the teeth, which, after the dentifrice has been used for a short time, appear softer, and feel as though they were covered by something gritty.

SUICIDE OF A YELLOW FEVER PHYSICIAN. — Dr. George Grey, of Denison, Texas, who distinguished himself by professional services rendered at Holly Springs during the late epidemic, committed suicide at New Orleans on Feb. 15th, by shooting himself through the head. No reason for the act is assigned.

BACTERIA IN CARBUNCLE.—W. T. Jackman, M.R.C.S. Eng., reports (*Lancet*) two cases of carbuncle in which he found bacteria in blood drawn from each patient.

DR. LUIGI CINISELLI died last month, aged seventy-five years. He was many years chief surgeon of the hospital at Cremona, Italy. He gave great attention to and was an able advocate of the electrolytic treatment of aneurism. He was the author of many papers on this and other subjects bearing upon surgical practice.

LALLEMAND'S GOUT SPECIFIC is said to be prepared at St. Louis, Mo., after the following formula:

℞. Ext. colchici acet.,
Ext. opii aquos ss. ..... gr. xv.
Potassii iodid..... ʒ iv.
Potassæ acetat..... ʒ ij.
Aquæ destil..... f ʒ iijss.
Vini alb..... f ʒ iv.

M.—Twenty drops three times a day.—*New Remedies.*

ARSENICAL POISONING AND GREEN EYE-SHADE.—A case is reported from Munich, of arsenical poisoning from wearing a *green* silk eye-shade for a long time.

FOR CHAPPED HANDS.—This is excellent:

℞. Resinæ..... ʒ j.
Ceræ..... ʒ iij.
Adipis..... ʒ ij.
Zinci oxidi..... ʒ vij. M.

HARVEY AND HIS DISCOVERY.—We have derived much pleasure in the perusal of the address made by Prof. DaCosta at the opening of the present session of Jefferson Medical College.

DIALYZED IRON IN ARSENIC-POISONING. — Edward Hirschsohn, of Dorpat, has experimentally proven that pure dialyzed iron alone does not act as an antidote to arsenious acid. The addition of ammonia or magnesia to the iron causes the production of an insoluble compound of arsenic, iron, and magnesia or ammonia.

QUINIA INSUFFLATIONS IN PERTUSSIS.—Dr. Mannheimer claims to have cured nine cases of pertussis in from four to seven days by the use of intra-laryngeal insufflations of equal parts of *quiniæ sulph.* and *cretæ præp.*

A NEW MEANS OF ARRESTING POST-PARTUM HÆMORRHAGE.—Dr. Christie, in *Med. Press and Circular*, Sept. 4, 1877, describes a new device as follows: An india-rubber pint bag with a tube and stop-cock attached. The air is squeezed out of the bag, the cock turned, and the former is to be introduced within the cavity of the uterus. The end of the tube is then to be placed in a vessel holding tepid water, which is held two feet or more above the uterus. The cock being again turned, the bag becomes filled by atmospheric pressure, thereby overcoming the uterine intra-arterial pressure. Leaving the valve (regulated by the cock) open, as the uterus contracts the water is expelled from the bag; if the womb again relax, the bag is again enlarged by the water-pressure. Smear the outside of the bag with glycerine. For placenta prævia use cold instead of tepid water.

TEST FOR ORGANIC MATTER IN WATER.—Put some of the water into a clean glass-stoppered bottle; add a little pure cane-sugar; expose, having well stoppered the bottle, to the light in a warm room. Should the water, even after a week's exposure, become turbid, it is dangerously impure for drinking; if it remain clear, it is safe. This is Heinsch's sugar-test.

SULPHUROUS ACID IN SCARLATINA—Is highly extolled by Dr. Waterman. He gave 10 to 30 drops, diluted, every 2, 3, or 4 hours, to eleven cases, ten of which recovered.

CHLORAL ANÆSTHESIA IN CHILDREN.—Dr. Bouchut says that a dose of grs. 35 to grs. 45, for children under three years of age, is without danger, produces sleep in half an hour and profound insensibility in one hour. This anæsthesia lasts from three to six hours, without any unpleasant consequences. This is the opinion from nine years' large experience.

SAYS Prof. Alonzo Clark: "As a matter of fact, two-thirds of patients sick with typhoid fever do better without than with alcoholic stimulation."

MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.—The Thirty-eighth Annual Commencement of the Medical Department of the University of the City of New York was held in the Academy of Music, Tuesday evening, February 18, 1879. The Academy was filled to overflowing with the friends of the students and the invited guests. The music was furnished by Grafulla. The exercises were opened by the reading of the Scriptures by Chancellor Crosby, and prayer by Rev. Dr. Deems. Chancellor Crosby then conferred the degree of Doctor in Medicine upon the two hundred and five members of the graduating class, after which he delivered the address to the graduating class. As usual, the Chancellor's remarks were plain and solid, and contained the following jewels:

1. "A rolling stone gathers no moss," or, "An itinerant doctor gets no practice." A restless fisherman didn't get bites, but went home at evening with an empty basket. 2. "The early bird catches the worms." If the doctor was ready on call, the people would be ready with their calls. 3. "Pleasant words are health to the bones;" which might be read: "A doctor's cheerfulness is often as good as his physic." 4. "Take care of the pennies and the pounds will take care of themselves." 5. "Industry wins the prize." 6. "Nip mischief in the bud." The address was closed by giving the graduates a few general sentiments, such as: "Yours is a profession, and not a trade. The object of a trade is to make money; the object of a profession is to bless mankind."

The Mott Prize Medals were awarded as follows: For the best dried anatomical preparation, gold medal, to W. R. Winters; for the second best, silver medal, to Gregory Iskiyan. To E. R. Boden was awarded a bronze medal for the best report of a surgical clinic. For the best examination in Pathology and Practical Medicine, the prize was awarded to J. C. McCoy. For the best examination in Materia Medica and Therapeutics, the prize was awarded to E. E. Wallace. For the best examination in Ophthalmology and Otology, the prize was awarded to William T. Smith. To W. J. Herriman was awarded the prize for the best examination in Obstetrics, and to W. Edwin Walker for the best examination on Diseases of the Nervous System. Honorable mention was made of the examinations sustained by C. M. Glenn, C. H. Brown, D. H. Wiesner, E. K. Root, C. Herzog, W. W. R. Fischer, N. H. Wilber, W. O. Bridges, G. W. Leonard, W. C. Davies, G. Voorhees, C. E. Grovesteen, H. M. Brown, F. H. Miller, and W. L. Ranney. The theses presented by M. W. Van Denburg and C. M. Brandt received honorable mention.

# Original Lectures.

## YELLOW FEVER—ITS ORIGIN, PROPAGATION, NATURE, AND MORBID ANATOMY.

A LECTURE DELIVERED BY SPECIAL REQUEST BEFORE THE GRADUATING CLASS OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF PENNSYLVANIA.

By ALFRED STILLÉ, M.D., LL.D.,

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE.

### PART I.

GENTLEMEN:—It is not my intention to present to you in this lecture an elaborate history of yellow fever, a work for which neither my time nor my ability would suffice. The few cases of the disease that I have myself seen give me no authority to speak of it from experience. But there are certain questions relating to its origin, propagation, and nature, which an impartial critic may perhaps decide more justly than physicians who have only their personal experience to enlighten them. It is notorious that some reporters of their own observations—not only in our own day, but even in former times—have obscured the subject by confounding together yellow fever and various forms of bilious remittent fever, and notably the malignant and the hæmaturic varieties of this disease.

#### THE FIRST MENTION OF YELLOW FEVER.

It is unquestionable that the earliest account of yellow fever is contained in the histories of the Spanish discoveries and colonization in the West Indies. From them we learn that an epidemic of the disease decimated the Spaniards on their second expedition to St. Domingo, at the end of the fifteenth century. During the following century it was elaborately described by the physicians who witnessed its ravages in the French colonies of Guadaloupe, St. Christopher's, and others.

From these original centres it was soon carried to Mexico and the other parts of the shores of the gulf of that name, where it certainly prevailed toward the end of the seventeenth century, and various points in North America during the following century. In all these latter places, that is, upon the American continent, there is no reason to believe that yellow fever was ever seen until it was brought thither from the West Indies. In like manner it is certain that, until commerce carried it to the eastern and western coasts of South America, it was never known in any of the localities which since then it has ravaged, and in some of which it appears to have become endemic, as it certainly has at several places on the southern coast of the gulf of Mexico; but not in all: for example, it was introduced into Dutch Guiana in 1793 and in 1800, and yet subsequently, and for a period of thirty-seven years, it never invaded that province. At the end of this long period of immunity the colony suffered from a new importation of the disease, which annually thereafter visited it for nine or ten successive years, when it ceased, and for the six following years failed to occur. It was then reintroduced by an infected vessel, and spread more widely than before. In Brazil, likewise, yellow fever never occurred until it was brought in 1849 by vessels from New Orleans and the West Indies, which infected all the ports at which they touched. From thence the disease travelled inland, causing an immense mortality. On the western coast of South America yellow fever was equally unknown until 1842, when it was introduced by vessels from New Orleans; but it soon afterward became extinct, until ten years later, when it was brought to Lima, in Peru, whence it extended to Valparaiso and other ports of Chili. All of these instances of the spread of yellow fever from the Gulf of Mexico to the coast towns of South America are distinctly traceable to the gold discoveries in California, which drew thousands of emigrants from the States east of the Mississippi, most of whom were passengers on board vessels that either sailed from New Orleans, or which tarried at some one or more of the yellow fever centres of the Gulf of Mexico.

#### THE SEEDS OF TRANSATLANTIC EPIDEMICS IMPORTED FROM AMERICA.

The history of transatlantic epidemics of yellow fever shows that their seeds were imported from America. It was so at Cadiz as early as 1731. But the great epidemic which desolated that city and the surrounding provinces from 1800 to 1804 was still more distinctly traceable to an infected ship from Charleston. Subsequent epidemics in Spain, several of which occurred down to 1828, were as clearly due to importation. It is worthy of notice that the only portion of Europe which was thus subjected to the plague was the one of all others whose commercial relations with the West Indies were the most intimate and frequent. Not only Spain, but other places in Europe where yellow fever has prevailed, furnish similar illustrations, and among them Lisbon, where for more than a century it from time to time occurred extensively and fatally, but always as a consequence of the commerce maintained between that port and the American endemic sources of the disease. On the western coast of Africa it has again and again occurred at several points, and there alone, the remainder of that continent never having known the disease. This fact is evidently and simply to be explained by the constant intercourse of the people of the west coast with the West Indies in the interests of the slave-trade.

In North America yellow fever has occurred at such places only as were in communication with one or another of its foci in the West Indies. In Baltimore, Philadelphia, New York, Boston, and other northern ports, the limited epidemics that have occasionally occurred have all, without a single exception, been traceable to vessels or their cargoes arriving from infected ports. Even these rare and limited outbreaks of the disease have grown less frequent and less extensive in proportion to the strictness with which quarantine laws and sanitary regulations have been observed. To such a degree of efficiency have these barriers reached at the port of New York, that, although for years past there has been no time during the prevalence of yellow fever in the West Indies when there have not been cases, and sometimes many cases of it, in the quarantine hospital at Staten Island and in the infected ships at that station, there is no instance of the disease having been carried to the city by any vessels, persons, or goods that had passed quarantine.

#### YELLOW FEVER DOES NOT ORIGINATE OUTSIDE OF THE WEST INDIES.

In a word, not a single example can be adduced to prove the origin of yellow fever outside of the West Indies. On rare occasions it has been observed at

some of the minor ports of New England, and also in Great Britain and other parts of Northern Europe; but in every such case it was easy to designate the very vessel that brought it from the West Indies; and, although less easy to demonstrate, it is none the less certain that to a like source may be traced all of the epidemics that have ravaged our southern States and those of the South American continent. That for some of them a claim of spontaneous or idiopathic origin has been made, is well known. But, taking together the facts which prove: 1. The ordinary source of yellow fever in importation from the West Indies; 2. the fact that in no single instance can the possibility of such importation be successfully controverted; and 3. the frequent errors of diagnosis committed by physicians who have mistaken various forms of malarial fever for yellow fever—the doctrine of the primary and exclusive origin of the disease in the West Indies receives a full and complete confirmation.

### THE CONDITIONS WHICH GENERATE THE DISEASE.

What, now, are the peculiar conditions which generate yellow fever in the West Indies? Long continued heat is certainly one of them, but it is not the sole nor a sufficient cause; for a higher temperature prevails in Africa and Asia, where yellow fever never existed. Neither is moisture, nor animal nor vegetable decay, nor any combination whatever of natural causes, for they all exist as abundantly elsewhere as in the West Indies, without ever generating the disease. Salt water is also essential to its production; for this fever never originates in inland localities, no matter what conditions in regard to heat, moisture, or putrefaction may coincide. These agents may generate malarial fever, but yellow fever never. In not a few instances a vessel sailing from an infected port in the West Indies has proceeded on its voyage for many days, even for several weeks, without accident, until, on opening the hatches or pumping the bilge-water from below the hold, the fever has immediately broken out. In many other cases such a vessel has sailed, it may be, from Havana to one of our own northern ports, or perhaps to Europe; she may have had some cases of the fever on board during the voyage, or, on the other hand, her crew may have remained perfectly healthy. She arrives at a healthy port in hot weather. Her crew disperse, and no one in contact with them contracts the disease. But the vessel's hatches are opened, stevedores belonging to the port unload its cargo, and presently they are all attacked with the fever, as well as the men on board the vessels lying alongside of the infected ship. It is evident that the ship itself, or something in it, but not its crew, was the cause of the outbreak, and equally evident that the morbid poison must have been brought from the port whence the ship came. It is just as certainly generated outside of the human system as that the cause of malarial fever is so, from which, however, it differs essentially in this, that it is portable in a great variety of things, including ships, merchandise, and clothing. When once introduced into a place it does not, like an aërial poison, spread rapidly and attack the population in every direction, as malaria does, but it is first developed around the spot where it first entered, and attacks those only who visit that locality, or who come into contact with fomites which have for some time remained in it. There can be no doubt, in view of the facts already stated, and of numberless corroborative ones, that the poison of yellow fever is specific; that its origin is in the islands of the Gulf of Mexico alone; that it is susceptible of being carried to distant points; and that it is as distinct from all other fever-poisons as the plants and the shells of the West Indies are from those of Pennsylvania.

The conclusions I have stated are drawn from a multitude of facts, and of themselves would be sufficient to establish the limited local origin of yellow fever and its dissemination by means of a specific poison. But the counter-proof confirms the argument. Yellow fever neither exists endemically in any other place in the world than in those mentioned, nor has it ever prevailed epidemically in any other place into which it was not introduced from its original source. At the present day we hear no more of such epidemics as, a generation or more ago, ravaged certain ports of Europe. Even sporadic cases of the disease no longer occur in them, and yet, in all respects save one, their sanitary condition is nearly the same as it was when the calamitous invasions of the fever took place. They are more populous, nearly as filthy, their commerce with the West Indies is as intimate, their climatic conditions are unchanged, and yet they are as free from yellow fever epidemics as before America was discovered. The reason of their exemption is simply that they refuse to admit vessels from infected ports until they have been purged of all sources and vehicles of the disease.

### THE EFFICACY OF A RIGID QUARANTINE.

The precautions which have proved so salutary abroad have been no less effectual in this country whenever they have been honestly and thoroughly taken; and there is every reason to believe that yellow fever would never again since the civil war have entered our southern ports, if the quarantine laws had been faithfully executed. During the war and for some time afterward yellow fever ceased to appear at New Orleans; and it is certain that the seeds of the recent epidemic were introduced into that city through the neglect, ignorance, or connivance of those who were charged with the duty of protecting the country from this mortal scourge. It is equally well known that as soon as the nature of the epidemic was recognized in New Orleans, another populous seaboard town, peculiarly liable to be infected from New Orleans, resolved upon absolute non-intercourse with the City of the Plague, and maintained its isolation throughout the epidemic. In vain it was threatened with a loss of commercial relations by certain influential corporations and individuals; it preferred life to wealth, and closed its port against the carriers of the pestilence who endeavored by force or stratagem to invade its sanitary line. It was rewarded by the result, for not a single case of yellow fever occurred in that city, while its less wise and prudent sisters in Louisiana, Mississippi, and Tennessee, who received the fugitives from New Orleans, were severely scourged.

The efficacy of duly executed quarantine laws is nowhere more distinctly displayed than by their administration at the port of New York, where, it is stated, more cases of yellow fever arrive between the months of July and October than at all the other ports of the United States. "During this period there is a daily average arrival of one or two infected vessels, and yet at no time for a number of years has the yellow fever made its appearance in that city." "This statement must go side by side with the one that New York, during its summer season, is as much exposed as New Orleans during the corresponding period."

### CIRCUMSTANCES INFLUENCING THE DIFFUSION AND MORTALITY OF YELLOW FEVER.

The circumstances or conditions which influence the diffusion, the grade, and the mortality of yellow fever

are peculiar, and differ from those relating to every other disease. It is well known that malarial fevers attack the same individuals year after year—the natives of the locality where they prevail as well as strangers; but yellow fever is apt to spare the natives of places where it is endemic, and very seldom attacks the same person more than once. Even in cities like our southern seaports, where the disease occurs only through importation, one attack is apt to render its subject invulnerable during subsequent epidemics. Still more than this, the natives of warm climates who go to reside in the yellow fever region are not nearly as liable to the graver forms of the disease as are the natives of colder climates; and it has long been noticed that during its epidemics the mortality is extremely great among the latter class of persons, and relatively small among the former. But neither will being a native of such a place nor a long acclimation secure an absolute immunity from the disease. Like typhus and typhoid and eruptive fevers, it is occasionally liable to attack those who have already paid tribute to it. During epidemics of an exceptional degree of violence or malignity such cases are not uncommon. Moreover, the immunity is very apt to be forfeited by natives of yellow fever localities who have resided long enough in a cool climate to undergo a certain change of constitution. On returning to their native places they are hardly less liable than original foreigners to be attacked.

THE COMPARATIVE IMMUNITY OF THE NEGRO RACE.

A remarkable difference of susceptibility to yellow fever exists between the white and colored races. Observers in the West Indies and in our Southern States, before the civil war, are agreed that the latter race are almost entirely exempt from its attacks, and several affirm that no negro from the coast of Africa was ever affected by it. Even among colored persons born in this country the liability has been comparatively small, and the type of the disease much milder than in whites. It is not without interest that the negro race enjoys a similar immunity from periodical fever also, and especially from that grade of it which, from its malignant type, has sometimes been confounded with yellow fever, while they are more liable than the whites to other epidemic diseases, such as typhus, typhoid, and eruptive fevers, and cholera, and suffer a greater mortality from them. It seems probable, therefore, that their immunity to yellow fever is innate and constitutional. But as it is well known that negroes bred in the northern portion of the Southern States are more liable to the disease, and especially to its graver forms, than those who have always lived in the seaboard towns, it seems probable that mere diversity of race, apart from climatic peculiarities, is insufficient to account for the relative insusceptibility of the southern negro to this disease. When we associate these facts with the one before mentioned, that foreigners are apt to contract the disease in proportion as they belong to cooler climates than that of the West Indies, we are led to suspect that the immunity of negroes is in some manner related to the great functional activity of their skin, which is proper to all natives of the torrid zone, but in the highest degree to the dark races, and which enables them to exhale the specific poisons of malarial and yellow fevers, while natives of cooler climates, being but feebly provided with such an eliminative faculty, fall victims to these diseases.

Such, in the briefest terms, is a history of the conditions under which yellow fever arises, but they shed no light upon the nature of its essential cause. So far as we know there is not any single climatic, meteorological, or telluric agency which is known to be peculiar to the cradle of the disease, nor any degree or combination of such visible agencies as are met with in the West Indies, that are not even more rife in thousands of places in Africa and Asia, which yellow fever never visited. In default of any demonstrable and real cause, the usual refuge of ignorance has been eagerly sought for by theorists who are not content to seem ignorant of anything. They attempt to blind themselves and us with a cloud of words which describe or define nothing, and which, when reduced to their simplest expression, read "Zymotic Poison." Upon calm reflection this phrase turns out to be little else than "words without knowledge." At the best it can only mean that a certain specific poison must be received into the system to produce yellow fever, as a certain other morbid poison must be absorbed to generate typhus, another, small-pox, and so on, a proposition which no well-informed physician can deny, but which leaves us as ignorant as ever of the specific cause of yellow fever. They neither tell us what it is, whence it proceeds, how it acts, nor wherein it differs from other morbid poisons; in fact, leave us quite as ignorant as when they undertook to instruct us.

THE GERM-ORIGIN THEORY NOT PROVEN.

A search after the organic germs which the zymotic theory calls for has been diligently made, but until recently no plausible claim to their discovery has been advanced. Since the late epidemic this has been done by Prof. J. G. Richardson, of this University, and Dr. Robert White, of the United States Marine Hospital Service. After examining specimens from yellow fever patients, dying in Louisville, Memphis, Mobile, and New Orleans, they believe they have discovered that the uriniferous tubules of the kidneys are often choked with a fungous growth, which *mechanically obstructs* the outflow of the renal secretion, and thus causes the diminution or complete suppression of urine, which constitutes such a common and fatal symptom of the disease. They also think that similar groups of fungoid spores (micrococci) frequently form in the hepatic ducts, and, by interfering with the free secretion of bile, give rise to the yellowness of the skin from which the name of yellow fever is derived. They report that the fresh blood of yellow fever patients, sealed up in tubes, and fastened to microscopic slides, so as to be readily examined with a power of 800 diameters, shows a fungous growth, differing somewhat from that developed under similar conditions in normal blood, but consider that their experiments are too few in number as yet to form the basis of any positive statement in regard to the presence of *spores* or *germs* in the circulating fluid of persons affected with this disease.

(To be continued.)

TWO CASES OF HYSTERICAL LARYNGISMUS CURED BY HYDROTHERAPEUTICS.—In the cases of two young girls, who, in addition to the other symptoms of hysteria, suffered from œsophagismus seu dysphagia spastica, Dr. Sieffermann employed all the usual remedies, including electricity, without success. He finally had recourse to the daily use of the douche, in connection with which the patients were directed to make forcible efforts to swallow. In one of the cases the spasm disappeared during the second douche, and in the other during the twelfth. The cure in both was permanent.—*Memorabilien.*

# Original Communications.

## ON THE USE OF JABORANDI, OR PILOCARPINE, IN THE TREATMENT OF PUERPERAL ALBUMINURIA AND CONVULSIONS.

READ BEFORE THE MEDICAL SOCIETY OF THE STATE OF NEW YORK, FEBRUARY 5, 1879.

BY FORDYCE BARKER, M.D., LL.D.

THE remarkable effects produced on the system by the administration of jaborandi, or its alkaloid, pilocarpine—effects never before secured by the use of any agent known in our materia medica—naturally suggested the theory that it would prove of service in relieving the œdema and eliminating urea in albuminuria.

Experiments and clinical observations have now settled the fact beyond all question, that this agent, when administered in sufficient doses, may be relied upon to excite excessive salivation and profuse diaphoresis, and thus drain off from the system by transudation a large amount of the water of the blood. It therefore seemed especially adapted for the removal of œdema. Then it was assumed that by this transudation, urea, in large quantities, would be eliminated from the system, and thus the danger from the retention of this element in the blood would be averted. The action of this medicine in producing this transudation seems to be nearly constant and uniform, and there is a great satisfaction to the medical attendant in the confidence that he is sure of the result that he aims to secure by the use of any given agent. If this agent produces just the effects which, on theoretical grounds, he desired to accomplish, he may be tempted to rest satisfied with this action, without stopping to ask himself whether any benefit really accrues to the patient from its use.

Having had the opportunity, within the past two years, to observe clinically the effect of this agent in several cases of puerperal albuminuria, I have been led to study more carefully the action of jaborandi on the system in this class of cases. I now venture to bring before the profession the conclusions which I have formed, and ask that they may be tested by other observers. Thus we may eventually be able to determine whether it will be of service in such cases, and, what is still more important, whether it can be used with safety.

I will briefly mention the effect produced on the system by jaborandi or its alkaloid, pilocarpine, that already seems to be demonstrated beyond doubt, and then allude to some points in which writers differ in regard to the results.

If the patient be in bed, and well-covered with warm clothing, in about ten minutes after the jaborandi is taken, or in from three to five minutes after the pilocarpine has been hypodermically injected, the face, ears, and neck become deeply flushed, and soon drops of perspiration break out over the body, while at the same time the mouth waters. In a short time the perspiration rapidly increases, the sweat running down the body and soaking the clothes, while the salivation becomes profuse, oozing from the mouth, sometimes in an almost continuous stream. The sweating and salivation persist from two to four or five hours. Sometimes, if the external conditions be not favorable, the above results may be much delayed and not appear for an hour or longer, and then perhaps are brought on by brisk exercise. The quantity of saliva discharged is very great, generally from a pint to a pint and a half. There is also, in many cases, a large secretion of nasal and bronchial mucus. The pulse is always quickened, often from forty to fifty beats in a minute, and this accelerated rate continues about four hours, while at the same time the pulse is weaker. There is a depression of temperature ranging from 0.4° Fahr., to 1.4°, averaging about 0.9°. The face, which is at first flushed, becomes pallid while the sweating is active, showing that this sweating is not due to the excess of blood sent to the skin. It often produces frontal headache, sometimes with giddiness and dulness, and the sight becomes hazy, without any alteration in the size of the pupils. In many cases it causes severe pain over the pubes, with a distressing, irresistible desire to pass water, the pain at once subsiding on emptying the bladder, even if it do not contain more than one or two ounces. The jaborandi or pilocarpine does not increase the renal secretion. Chilliness is experienced after the cessation of the sweating stage, and languor and debility usually persist for some hours.

This description of the effects of this agent, chiefly borrowed from Ringer, is in accord with that of all who have reported their experiments and observations. But in some other details there is a notable difference. Bartholow states that there is an immense increase of elimination of urea by the skin, as one of the results of the administration of this remedy; but he gives no authority for the assertion, and as I have been unable to find any experiments reported, which demonstrate this to be the fact, I think we have no right to assume it to be true. In the investigations of Piliere, Stumpf, Craig, and Schwan, no urea is mentioned as having been found in the saliva or sweat. In the July number of the *American Journal of the Medical Sciences* is an article by Professor Tyson, of the University of Pennsylvania, and Dr. Bruen, Physician to the Philadelphia Hospital, in which experiments are detailed showing the effects of jaborandi in eliminating urea by the kidneys in three healthy persons, and in three cases of chronic Bright's disease. It is stated that in health the quantity of urine was slightly increased in the twenty-four hours in one case, and somewhat diminished in two cases, while the urea itself was decidedly increased in each case. In Bright's disease the urine was increased in one case, and diminished in two, while the urea was increased in two instances, and very slightly diminished in one. While these writers regard the jaborandi as useful in Bright's disease, they remark "that this increase of urea is hardly sufficient to justify us in attributing the entire benefit which follows jaborandi sweats in Bright's disease." They believe this advantage is largely due to the removal of fluid and elimination of urea by the skin.

I think with Bartholow that the action of jaborandi is paralyzant of the vaso-motor nervous system. The flushing of the skin and the increased action of the heart is doubtless due to dilatation of the arterioles. The sphygmograph demonstrates the lowering of the vascular tension.

The question we now have to consider is whether the effects just described are likely to be of service in the treatment of puerperal albuminuria, and will aid in preventing or curing puerperal convulsions. Three cases have been reported in which the patients have been apparently benefited, but in none of these is the evidence conclusive. From a study of the re-

ports of some other cases it has seemed to me evident that the action of the jaborandi was injurious and contributed to bring on a fatal result. A brief abstract of six cases of puerperal albuminuria which I saw in consultation with others, will serve to illustrate the action of the agent in this affection, and will perhaps aid us in deciding this question.

CASE I.—March 5, 1877, I saw in consultation with two other physicians, Mrs. M., aged 43, then in the eighth month of her seventh pregnancy. A month previous to this visit she began to have some œdema of the face and lower extremities, which had been rapidly increasing, and at this time the œdema was so excessive that the whole areolar tissue seemed to be infiltrated. The legs, the labia, and the face were enormously swollen, pitting deeply on pressure. She complained of weakness, and was obliged to keep her bed; but she had no other symptom, such as headache, nausea, or impairment of vision. The urine was normal as to quantity, sp. gr. 1020, with no albumen or casts. She had been taking saline laxatives and diuretics, which had no effect in increasing the amount of urine or in diminishing the œdema. I suggested that half a drachm of the fluid extract of jaborandi be given three times a day. March 8th, I saw the patient a second time. The medicine had caused profuse perspiration and salivation, and the œdema was very considerably diminished. The patient was dull, sleepy, and complained of headache. Pulse, 112. The action of the jaborandi had prevented her from sleeping much during the two previous nights. The amount of urine was notably diminished, estimated at sixteen ounces for the past twenty-four hours; sp. gr. 1019. The jaborandi was then given but twice a day. March 10: Œdema decidedly greater than at the former visit, amount of urine increased in quantity; but now, for the first time, it was highly albuminous; one-fourth in the tube solidified by heat and nitric acid. The patient had no appetite, was nauseated, restless, fretful, and very nervous. The pulse was weak and rapid. She complained bitterly of the salivation and perspiration. No more jaborandi was given, but the aromatic spirits of ammonia and brandy. She also took ʒ ij. of the compound powder of jalap and five grains of calomel. March 11, 7 A.M.: The powder given yesterday had produced no effect either on the bowels or kidneys, as she had passed no urine for twelve hours. Six ounces were drawn off by the catheter, and fully seventy-five per cent. solidified when tested by heat and nitric acid. One-eighth of a grain of Clutterbuck's elaterium was then prescribed to be taken every half-hour, until it acted freely. March 12: After taking five doses of the elaterium, free catharsis began, and during the afternoon and evening she had eight large water discharges. No urine had passed except with the alvine discharges. By the catheter two ounces were drawn off, of which about twenty-five per cent. solidified. A half-ounce of the infusion of digitalis, with half a drachm of the acetate of potash, was then prescribed to be taken morning and evening, and twenty drops of the tincture of the chloride of iron three times a day. She was confined rigidly to a milk diet.

I saw her for the last time March 17th. At this time the œdema had so entirely disappeared that I could hardly convince myself that she was the same patient whom I had seen before. She was passing daily about forty-two ounces of urine, and the specimen which I saw did not contain more than five per cent. of albumen. She was taking about five pints of milk daily and was in excellent spirits, as she was certain that she had felt the movements of the child for the first time for more than two weeks. I subsequently learned from her attending physician that on the 2d of April, after a short and easy labor, she gave birth to a living but feeble child, which afterwards thrived well. The œdema and albumen had entirely disappeared four days previous to the parturition, and her convalescence was unattended by a single unpleasant symptom, except atrocious after-pains which continued nearly a week.

CASE II.—The patient was a primipara, aged 19, seven and a half months pregnant. She was supposed to be in perfect health, as she had no symptoms either of nausea, headache, or œdema until her husband was awakened by the movements of the bed and by a strange sound in her breathing. On lighting the gas he was greatly alarmed to find her in convulsions. Her physician was summoned as soon as possible. Twenty grains of calomel were placed on her tongue, she was thoroughly cupped over the kidneys, and then a stimulating enema of turpentine was given. Cold applications were applied to the head, and chloroform was inhaled as soon as it could be procured. After the fifth convulsion the os uteri was found to be dilating, and delivery of a dead child was hastened by turning. She had eight convulsions before the delivery, but never was conscious from the first attack. After the delivery of the placenta there was very considerable hemorrhage, supposed to be about twenty ounces. She remained in a stupor about two hours after delivery, when she became conscious, asked what was the matter, and why a nurse whom she did not know was with her. She slept quietly for about five hours, awaking frequently to ask for water. She then, while asleep, had her ninth convulsion, and three others followed in rapid succession. A prominent obstetrician was then called in consultation, who introduced a catheter and drew off about six ounces of highly albuminous urine. By his advice a quarter of a grain of pilocarpine was then administered hypodermically. This produced its specific effects, and was repeated in six hours. She had no convulsions after the first hypodermic injection of pilocarpine. I saw her thirty hours after delivery. She was then conscious and answered some questions. But her pulse was very feeble and rapid, her respiration was labored, with loud râles, bronchial, tracheal, and nasal; the transudation from the surface was very profuse, and the nurse was incessantly occupied in wiping the saliva from the mouth and the flow from the nasal passage. She died within an hour after I saw her.

CASE III.—This lady, a primipara in the seventh month of pregnancy, began to complain of headache and some impairment of vision, and her physician found some albumen in the urine. She was treated by cathartics and diuretics for about a month, with no improvement in her symptoms, but, on the contrary, the urine became progressively more albuminous and less in quantity. Her physician then decided to make a trial of jaborandi. Up to this time she had never been compelled to lie down from the time she arose in the morning until she retired about ten in the evening. A drachm of the fluid extract of jaborandi was given at three o'clock in the afternoon and at seven the following morning. It produced its most marked effects of diaphoresis and salivation, but these effects had disappeared when I saw her at 2 P.M. of the same day. On entering the room I was struck with her cyanotic appearance and very great difficulty in breathing. The appearance of asphyxia was so striking that I suspected pulmonary thrombosis, and at once placed my ear over the region of the heart before getting a history of the case. I was surprised

to find that the sounds of the heart could only be heard at the distance of an inch to the right of the sternum; and that I could hear no respiration over the whole left chest, and only at the upper half of the right. She was lying upon the left side, and complained of increased difficulty in breathing when I turned her upon her back. On partially raising her in bed the breathing was somewhat easier. Percussion gave a very flat sound over the whole left side and at the lower half of the right. She was perfectly conscious, and in answer to our inquiries she could not recollect that she had passed any water since she went to bed at four the previous afternoon, one hour after taking the first teaspoonful of jaborandi. She objected so strenuously to the use of the catheter that we did not insist upon it, as she was evidently dying.

Did the jaborandi in this case cause an excessive transudation and rapid effusion into the pleural cavity?

Case IV.—Mrs. B. was delivered of her fourth child after a labor of two hours, with so little pain that she did not ask for chloroform, which she had inhaled in her three former labors. The accoucheur who had attended her before was out of town, and as she considered herself perfectly well, the physician who attended her in her confinement did not see her until labor came on. Four hours after the labor she was reported to have passed water freely. Nine hours after the labor she was awakened from sleep by the falling of the "blower" which the nurse had placed over the fire. She was immediately seized with convulsions, and had three very severe ones before the arrival of her physician. He immediately administered a hypodermic injection of one-third of a grain of morphia. She had no more convulsions, but slept, breathing quietly, for nearly six hours. Her physician then passed the catheter and obtained only about six ounces of urine, which was highly albuminous. More than two-thirds solidified by heat and nitric acid. He then gave a quarter of a grain of pilocarpine hypodermically with the most perfect success in exciting diaphoresis and salivation. After six hours this was repeated. One hour after, her symptoms became so alarming that I was sent for. I never witnessed so painful a scene. She was flooded by the transudation on the surface. The nurse was incessantly soaking cloths with the saliva and discharge from the nasal passages, and at the same time she presented the unmistakable symptoms of pulmonary thrombosis. I was compelled by the piteous requests of her husband and mother to remain with her an hour until her physician arrived, but she died a few moments after I left the house.

Case V.—This patient had no symptom of albuminuria previous to her eighth labor, which was very tedious and was terminated twenty-six hours after its active commencement by forceps delivery. She lost very little blood after the expulsion of placenta. She passed water freely six hours after. Then she began to suffer extremely from after-pains. A teaspoonful of paregoric was given every two hours, until she had taken three, but this had no effect in relieving the after-pains. She then had an attack of convulsions, and had five in rapid succession, without consciousness in the intervals between them. After about five hours of stupor following the last, she became conscious. The bladder was relieved by the use of the catheter, as she could not pass it voluntarily. She seemed to be doing well for two days, except that the secretion of urine was less than it should be, but two examinations failed to discover albumen. On the third day her physician discovered that it was loaded with albumen. As she had been taking all of this time active diuretics, and the bowels had been freely moved, he decided to give a drachm of the fluid extract of jaborandi, which acted most efficiently for about five hours. After the perspiration and salivation had ceased she complained of being chilly, and of headache, and she looked so badly that her physician was summoned. I saw her at nine in the evening, ten hours after she had taken the jaborandi. She was then dying, evidently from cerebral œdema and cardiac asthenia.

Case VI.—A lady thirty-six years of age, married nine months, supposed herself to be about seven months pregnant. While at church she began to suffer from severe headache and nausea, and was much alarmed to find that she saw very indistinctly. She left church, and her husband at once sent for a physician. She had been up to this time very well, except that she had latterly been very constipated. Five grains of blue-mass were ordered, to be followed in four hours by a Seidlitz powder. This produced one very copious fluid evacuation from the bowels, but no improvement in her symptoms. On Monday morning the urine was found deficient in quantity and very dark in color, but it was not tested for albumen. She was ordered to drink freely a sweetened solution of the bitartrate of potash, and to take thirty drops of the sweet spirits of nitre every third hour. She had no appetite, was extremely nervous, and passed a very restless and disturbed night. On the following morning another physician was called in consultation. He examined the urine and found that fully three-quarters in the tube solidified when tested by heat and nitric acid. He advised that a drachm of the fluid extract of jaborandi should be given at once. Two hours after taking it, the salivation and sweating then being very profuse, she had a violent convulsion, during which the tongue was badly bitten.

During the following six hours she had five more convulsions. Labor was induced by the fingers and the use of Barnes' dilators, and delivery was expedited by version and extraction of the child, the patient being anæsthetized by sulphuric ether. Two hours after the labor she was sufficiently conscious to swallow when asked to do so, and resisted, with great nervous excitement, the attempt to pass the catheter. Immediately after this she had a seventh convulsion. When I first saw her, five hours after delivery, she was moribund, the inspiration being very short, with loud mucous *râles*, and the expiration very prolonged. She lived without marked change in these symptoms about four hours.

The question, which must naturally suggest itself to the minds of all, is whether the development of uræmic symptoms and albuminous urine in the first case, the great depression and exhaustion which followed the use of the jaborandi in the second, the serous effusion in the pleural cavity in the third, the pulmonary thrombosis in the fourth, the cerebral œdema and cardiac asthenia in the fifth, the convulsions in the sixth, or finally the fatal terminations in the second, third, fourth, fifth, and sixth cases, were not chiefly due to the effect of the jaborandi on the nervous system and its modifications of the constituents of the blood? Might not all the good effects sought for in the use of the jaborandi been attained by other agents at less expense to the vital powers and less disturbance of the organs of nutrition? Have not many of us seen cases in which the symptoms have been more alarming and dangerous, except those that we may on reasonable grounds attribute to the jaborandi, which have eventually recov-

ered? I beg to give, in striking and suggestive contrast to these cases, the brief abstract of the report of one which occurred in the Colored Hospital, New York, in the service of Dr. S. Whitall, and is published in the Hospital Gazette, December 12, 1878.

CASE VII.—The patient, aged twenty-two, single, primipara, had, on admission to the hospital, headache, dimness of vision, vertigo, œdema of the face and lower extremities, and albumen and casts in the urine. She was treated by gentle purges and a diuretic mixture, the infusion of digitalis and acetate of potash. On the morning of the 31st of August, 1878, she was delivered of twins, one living and one dead. In the afternoon she became comatose; pulse, 120; respiration, 26; temperature, 103° F.; urine, specific gravity, 1008, of which ninety per cent. was albumen. In the morning she had a convulsion. Three drops of croton oil were then given, and the same evening she was bled, eight ounces being taken from the arm. Sept. 1st: Bowels moved freely; breathing, labored; pulse, 150; respiration, 60; temperature, 105.4° F. She was then put in a cold pack until the temperature should fall, and one drachm of brandy was given every hour. Sept. 4th: She had no headache or other uræmic manifestations. On the 8th she was convalescent; pulse, 84; respiration, 24; temperature, 99.4° F.; and the report states that mother and child, a few weeks after, were discharged in good condition.

Would the result have been the same if after the convulsion, when she was comatose, with a very rapid pulse and high temperature, secreting urine ninety per cent. of which was albumen, an enema of jaborandi or a hypodermic injection of pilocarpine had been relied upon for the relief of her symptoms instead of the croton oil and venesection?

The limit of time assigned to me will not permit further discussion of the subject, and I will conclude by expressing my conviction that the utility of jaborandi in the treatment of puerperal albuminuria is more than doubtful, and that, after puerperal convulsions, its depressing influence and action, which is continuous and exhausting, prevents sleep and the repose of the nervous system, and thus renders it in these cases an unsafe and dangerous remedy.

## SOME CASES OF URETHRAL SURGERY.

BY THOMAS R. BROWN, M.D.,

PROF. CLINICAL AND OPERATIVE SURGERY AND DISEASES OF THE GENITO-URINARY ORGANS, COLLEGE OF PHYSICIANS AND SURGEONS, BALTIMORE, MD.

(Read before the Surgical Society of Baltimore.)

CERTAIN noteworthy instances have occurred to me in urethral surgery, where unexpected, and, if we regard the text-books as authority, unusual results have followed practice. These have been numerous; and rather than undertake to recite the whole series, it will accomplish the purpose to narrate one or more of each kind as types.

CASE I.—Mr. C., aged 30, single, occupation farmer, was brought to me February 12, 1878, with a history of having contracted gonorrhœa about two years before. This was slow in getting well. Since the true gonorrhœal discharge ceased he has been annoyed by unpleasant sensations along the urethra, chiefly at a point about four inches from the meatus. These were present during micturition especially, but were more or less constant, associated with a slight gleety discharge. Combined with these was a "movement" up and down, as he styled it, of the left testicle. This went on day and night with short intervals, and had become so distressing as to depress his spirits and almost completely unfit him for work or for any of the social enjoyments of life. Whilst handling the scrotum this movement could be distinctly seen and felt. By means of the urethrometer a stricture of large calibre was easily made out at the point where the irritation was chiefly complained of—four inches from the meatus. The latter was also small. The easy play of the instrument, without urethral distention, expanded to 40 F. both before and behind the contraction, called for this—40 F.—as the normal calibre. To this size both the meatus and distal stricture were raised with Otis's urethrotome and a 40 F. steel sound was passed easily into the bladder. No anæsthetic was used, and the pain was slight. The patient was kept in bed for a day or two, and, with the exception of the after-passage of the proper sound, and an occasional astringent injection, no other treatment was instituted. Greatly to his comfort, all the disagreeable symptoms were relieved. He called upon me several months after the operation, in fine spirits, stating that the movement was very slight, only now and then, and that he felt as if a great load had been taken from him. He was an altogether different man; and I can safely assert, that it has seldom fallen to my lot to have seen as great happiness produced by any surgical procedure as was the case here.

CASE II.—Mr. C., aged, 18, a resident of the Eastern Shore of Maryland, was introduced to me by my friend Dr. Henry Salzer, of this place. When I saw him he was suffering greatly from retention, which began fifteen hours before, while making a visit to the city.

Some years ago he contracted gonorrhœa, which soon got well. Before that he had had no trouble with his water. Soon after his attack his urine dribbled away from him at times; at other times the stream was small, and was always ejected with pain and considerable effort. His meatus was very narrow. Silver and gum catheters were successively introduced, but could not be passed beyond a close contraction in the membranous urethra. In consequence of his great sufferings instrumentation was not continued long, and supra-pubic aspiration of the bladder was practised, which afforded instant relief. (In another place I have urged the *great superiority* of this mode of practice over that usually accepted as the right one—prolonged attempts to enter the bladder per *viam naturalem*.) The aspiration was practised at 2 P.M. He was put to bed and a dose of morphia given. When visited by me at 7 P.M., his previous distress had returned, with great distention of bladder. Ether, carried to complete relaxation, was given, and a double catheter—after a short delay, clearly due to spasm at the membranous urethra—was passed into the bladder. This was retained from Thursday to Saturday noon, at which time a careful exploration was made with the urethrometer, finding nothing but the contracted meatus above alluded to. The normal calibre was 32 F. To this the meatus was cut, and a steel sound of that size passed into the bladder without detecting the least resistance at any point.

A sharp attack of urethral fever, characterized by rigor, high temperature, at one time reaching 105°, vomiting, anorexia, and decided jaundice, despite the use of quinine and morphia, succeeded the operation. The fever ended in sweat. After its subsidence the 32 F. sound was inserted on alternate days until bleeding

ceased. The patient returned to his home, and from that day to when last heard from, nearly two years after the operation, was perfectly well.

CASE III.—Mr. G., married, age 33, of short, compact physique, looking the very picture of health, was brought to my office by Dr. Samuel Earle, of Centreville, Queen Anne County, with a history of retention some days before. On account of close obstructions at the membranous urethra, his urine could not be drawn off. The retention was finally relieved by fomentations to hypogastrium, morphia internally, and hot hip-baths, fourteen hours after the trouble began. Patient stated that he had had many cases of gonorrhœa, the last one eight years ago; all of these were hard to cure. For the past seven years he had observed his stream of urine getting smaller until, at the time of consulting me, it was discharged in drops or no larger than a thread. A No. 8 A. steel passed with some difficulty through the membranous urethra, where for a time it was held, and, after having entered, was forcibly squeezed. His urethra was sensitive, and did not bear much handling. As is usual with me, before any urethral or other operation, the urine was examined and found to be healthy. Two days after the examination he was placed under ether, and the urethra explored with the urethrometer; Its calibre was 30 F. While the instrument was withdrawn a decided resistance was met with just in front of bulb three inches from the meatus, one-half inch from the meatus and at the latter point. The contractions at and near the meatus were close, the others were of large calibre; all were divided so as to admit the easy passage of a 30 F. sound to bladder. In the membranous urethra, where all the trouble was found at the time of the first examination with a No. 8, there was no stricture.

Smart bleeding followed, which was easily controlled. Quinine and morphia were prescribed, patient placed in bed, and ordered a bland diet. The suggested after-passage of sound was neglected partly, and, on re-examination six months after, showed slight recontraction, which was divided. Since the latter occurrence he has continued well, passing a large stream, and without any recurrence of retention. During erection he has a slight curvature.

CASE IV.—Mr. H., married, without offspring; is of a tall, spare figure; age about 36, and in all respects looking the typical dyspeptic; was brought to my office by his family physician, Dr. Salzer, October 12, 1878, 11 A.M., suffering from retention. He had passed the night in great suffering, vainly endeavoring to empty the bladder. A silver catheter, with a long curve, was introduced, and at first completely stopped at membranous urethra. The point of the instrument was gently, but continuously pressed against the resistance, and in a few moments glided into the bladder, permitting the escape of about one quart of urine. I found upon inquiry that for the past eight years he had been a great sufferer, and his appearance fully sustained his assertion. He looked like a man who had suffered much pain. His troubles included an obstinate dyspepsia, impairment of sexual powers, without seminal escape during congress, difficult micturition, with frequent attacks of retention. The urine was loaded with the octahedra crystals of oxalate of lime, a thick, ropy mucus, with an abundance of spheroidal cells and of shreds. There was neither albumen nor casts. When allowed to stand, a very thick precipitate (white) formed, and the secretion soon became offensive. For all of these he had undergone a prolonged course of treatment, general and local; the latter included bladder injections prompted by a theory of cystitis, no doubt. Besides all these, he had catheterized himself occasionally with a view of preventing a recurrence of the retention, which he dreaded; notwithstanding, he found no relief. He denied ever having had gonorrhœa, but confessed to inordinate masturbation in his youth. He used, either in chewing or smoking, tobacco immoderately. He was subject to cold feet and hands all the time. His appetite was capricious; his bowels were irregular, and sleep more or less disturbed. None of these could be traced to any business complications. Finding his meatus contracted to a mere pin-point, and him disposed to avail himself of any reasonable source of relief, I recommended an operation, postponing further examination of the urethra to that time—this was appointed for four (4) o'clock, five hours after the withdrawal of his urine. When I reached his dwelling at that hour, I found him in great agony, pacing the floor and complaining that his bladder was very much distended.

In passing I may be permitted to note, what may have occurred to other surgeons, the very rapid manner in which a bladder refills after one of these attacks of retention. The viscus, being filled to its utmost capacity, no longer receives any addition; and it would seem, if no vicarious action take place, as if the secretion really welled up behind, waiting to descend as soon as the reservoir was emptied.

Mr. H. was immediately etherized. The urethrometer then showed the normal calibre to be 34 millimetres. A stricture of large calibre was detected at two and a half inches from the meatus; the latter, as just stated, was exceedingly small. Both of these were divided to full size—34 F., and a proper sound introduced into the bladder. The accumulated urine was withdrawn in large quantity through a catheter. In consequence of the element of spasm in this case, contrary to my almost invariable practice, I tied in a soft gum-catheter. The latter was allowed to remain until the next day, when it was found besmeared from beginning to end with thick, ropy mucus, such as he was in the habit of seeing. The after-treatment was in a measure interfered with by his susceptibility to urethral fever, which would follow the introduction of the sound. I have omitted to mention that certain symptoms suggested a search for stone, which was not found. In one instance they were clearly due to an attack of pyelitis, which is quite capable of producing symptoms like those due to a calculus. During my attendance his urine cleared up, no retention occurred, and my patient was immensely improved. This improvement has gone on to this time, and when he called upon me a few evenings since, he announced himself as afraid that it was all "too good to last." His wife assured me that during their married life of two years he had not passed such urine as since the operation, while he affirmed the same for the last eight years.

CASE V.—Jno. C., age 40, single, in good health; occupation, shoemaker; applied at my clinic in September, 1878, for relief of urethral stricture, with dribbling of urine, etc., etc. He gave the history of a case of gonorrhœa eleven years ago, and of malarial fever during his service in the late war. These constituted about all his troubles for many years. The gonorrhœa was succeeded by difficult micturition and a growing diminution in the size of his stream. This was followed by perineal fistula. Eight years ago, while in Philadelphia, he had retention, and while suffering from this went to the hospital and secured the attendance of a well-known surgeon.

He gives an account of the surgeon's unsuccessful

attempt to pass a catheter, failing in which, he performed perineal section, and combined with the major operation division of the fistula. Patient remained in hospital four months, and in about six months his condition was as bad as ever. On October 22, 1878, after stretching the meatus and the first two inches of the urethra, for the purpose of getting the urethrometer in, the latter was passed to the bulb, and the normal calibre found to be 40. The only resistance found was at a point two inches from the meatus. The whole of this space barely admitted the Thompson. The meatus and other strictures were divided to 40 F., and a sound of this size passed into the bladder. Not the least sign of stricture in membranous urethra. After this he underwent the usual after-treatment, and left the hospital perfectly well. (Patient exhibited and examined.)

Case VI.—Mr. R., of Virginia, age 26, Hebrew; presented with the following history: Gonorrhœa three and a half years ago, which lasted a couple of months. During this time he stated that he had used every kind of medicine, internally and externally, which an assortment of doctors could suggest. A gleety discharge has continued from that time to the date of visiting me (June 2, 1878). His chief complaint was a fistula in the left half of the scrotum, well back towards the perineum, through which a portion of his urine was discharged. It appeared at first some five months previously, without any premonition; his first intimation of anything wrong was the discovery of something wet running down his thighs. At the next passage, while holding the scrotum in his hand, he observed that the urine ran into it. He sought medical advice, and his physician, finding a small opening, cauterized it. This, for some reason or another, as there was not the least trouble in making water, was followed by the use of catheters and sounds, of which the patient owned a great variety, none larger than No. 12 A. After this the fistula seemed to close, but reopened May 25, 1878, in much the same way as before, and again discharged urine. The urethra measured 37 F., and the urethrometer revealed a stricture two and a half inches from the meatus, which measured 25 F. As is the case with the many Hebrews I have met with, his meatus was of the same size as the urethra. The stricture was divided to 37, under chloroform, and a sound measuring 37 F. passed. For two weeks the usual after-treatment was kept up, and the patient permitted to return home. This was all the treatment, and under this the fistula closed. The gleety discharge, which was probably produced in the tract of the fistula, ceased.

Case VII.—Mr. X. This needs no further comment than that it belongs to a class of cases which it is intended to represent—cases of gleet depending upon stricture of large calibre, which, do what you will, are apt to continue, unless the strictures are divided.

Case VIII.—Mr. J., æt. 52, married; of large, muscular frame, and, with the exception of urethral trouble, was well. Ten years ago he contracted gonorrhœa; one year ago he commenced to have some pain and difficulty in making water.

About November 1, 1878, he appeared at my clinic with symptoms of stricture, the stream of urine at best being no larger than a "darning-needle," and generally it came away in drops, associated with straining. The urethrometric examinations showed normal calibre to be 35 F., and contractions at three different points anterior to bulb. These were divided completely, hoping that the obstruction in the deep urethra would disappear; but such was not the result. I declined to render further service to him as an out-patient, owing to the seat of posterior strictures, and urged upon him to enter the hospital. He soon after was admitted to the City Hospital of the College of Physicians and Surgeons, and followed a tonic course of treatment. From time to time attempts were made to introduce one or another kind of instrument into bladder, but all failed, owing to an impassable contraction, or rather an inaccessible opening in the membranous urethra, until December 9th. This was accomplished with the small filiform adjustment that screws to Holt's instrument. This was allowed to remain for some hours, when it was removed on account of pain. Its removal allowed a freer flow of urine than he had had for one year. At 1 P.M., December 10th, heart and kidneys having been previously examined and found all right, he was given chloroform, and the urethrotome (Otis's), raised to 35 F., was made to traverse the anterior strictures, to make sure of their complete division. The persistence of stricture in the urethral curve after this, with the patient thoroughly anæsthetized, confirmed the previous suspicions of real organic membranous stricture. The same filiform already referred to was screwed to Holt's instrument, but after careful manipulation was withdrawn with the guide doubled. My conviction as to closeness of lowermost stricture, as well as to the serious risks of internal urethrotomy in this part of the urethra, suggested, as the best mode of relief, perineal section, using Gouley's grooved catheter as far as it would go, which was to a point just behind the union of scrotum and perineum. This was cut down upon and withdrawn, preferring to encounter for the rest of the work all the objections of section without a guide, because of false passages. With no more than the usual difficulty, the stricture anterior to prostate was found and divided upon a director. The band was narrow. The common female catheter, the same that I have used on previous similar occasions, was passed along a perfectly smooth channel towards the bladder. It was inserted slowly and carefully, using at the same time a stylet for the purpose of removing clots. The catheter having passed within the lips of the wound and beyond the easy reach of my fingers, much for the sake of giving myself rest from a most fatiguing position, I stepped to the instrument shelf, near the table, to get a pair of dressing-forceps. When I returned, in the course of a minute, I was amazed to find that the catheter could not be seen or touched. Believing it scarcely possible for it to have really entered the bladder, I had the operating-table and floor carefully examined and every instrument collected and counted. The catheter was not to be found. The stone-searcher was introduced, and at once struck the missing instrument, apparently lying crosswise in the bladder.

Forceps of different kinds were used, but could not secure the catheter. Median incision of the prostate was performed with the hope of getting it with my urethral forceps and finger combined. An enlarged prostate made it impossible for me to pass the latter farther than the apex of the gland. By this time the patient's condition began to show signs of failure from prolonged anæsthesia—two and a half hours. His expression was bad, pulse small and intermittent, gagging and vomiting constant. It was deemed best to delay further attempts to extract the foreign body, considering that its presence was not likely to inflict as great damage as prolonging the anæsthesia. On account of bleeding, after the perineal crutch was applied—the value of which, as a means of controlling

hemorrhage at this point, can scarcely be exaggerated—and the limbs were tied tightly together, he was put to bed. The nausea with green vomit kept up until midnight, and returned at intervals for several hours afterwards, despite remedies. He slept little during the night, on account of this symptom. There was at no time any vesical tenesmus. The urine passed was ammoniacal, due no doubt to previous condition, as he never, I may say, at any time entirely emptied his bladder within the last year. His pulse the next morning was 120 and temperature 100° F. At 11 A.M., aided by my colleague, Prof. Latimer, a second attempt was made to seize the catheter and withdraw it, after enlarging the prostatic opening, but without success.

Stimulants were given before the chloroform, but the condition of the patient was such as soon to compel a discontinuance of our efforts. There was no difficulty in feeling the instrument, but it could not be engaged. The bladder was unusually spacious. Under all the circumstances, it was concluded to be best to await further developments before having recourse to any of the many methods that might be suggested for such a case. His condition at the time of writing is excellent, there being not a single symptom present to indicate the presence of this body in his bladder. His urine is passed in large quantities through the perineal opening, without the least pain or effort.

An explanation of this curious occurrence is difficult. The sudden disappearance of the catheter surprised me beyond description, and, as stated in the text, it was not until after a careful search for it among the other instruments, and the final finding of it in the bladder, that I was convinced of its whereabouts. I do not think that I could have pushed it away with the stylet, for the reasons apparent. As an aid to the solution, we can recall the violent gagging that went on continually, with its alternate compression and expansion of the whole abdominal wall, including hypogastrium. (I propose to test this theory upon the dead subject.) The nearest that I can come to an explanation is that the catheter, having once entered the urethra fairly, was, by means of a sort of suction movement, aided by collateral muscular action, drawn into the viscus. The further history of the case will be presented when it is completed.*

*Summary.*—Case I. is a representative of a class of cases in which stricture of large calibre causes constant spasm of a distant muscle with distressing "motion" of testicle, so claimed because the latter was relieved by treatment of the former.

Cases II. and III. represent a very large number, in my experience, of cases in which from the symptoms the *real* disease might be referred to the membranous urethra; but the latter proved to be consecutive and truly spasmodic, depending upon anterior organic contractions, by its entire disappearance after the complete division of the coarctations in front. As stated by me in my address before the Maryland State Faculty, the number of such cases I have met with is so large as to make me very sceptical as to the alleged frequency of membranous strictures. The whole surroundings are so deceptive that much caution is required before any operation is undertaken, lest, instead of cutting into a genuine stricture, we may be cutting a "spasm."

Case V. seems to be a case of this kind, in which an eminent surgeon, by overlooking the element of reflex action, judging from all the collated testimony, did perineal section because *there* was the point through which no instrument could be passed, and because, by our very defective methods of examination generally in use for the detection of stricture, he could find no trouble in front.

Case IV. is typical of another class of cases, in which, according to eminent authority, serious disease—local and general—seemingly can be produced by a contracted meatus, and a stricture of large calibre, so claimed for the reason that the patient entirely recovered after their division.

Case VI.—This is where a stricture of large calibre—large enough to permit the flow of a large stream of urine—was able to produce a fistula which would not close until after the strictured point was raised to the size of the rest of the urethra.

Case VII. belongs to a class of cases in my hands not nearly so large as in others, where a gleet has been cured by division of large strictures and contracted meatus.

Case VIII. needs no additional comment besides that contained in the notes.

* Since submitting the manuscript, Mr. J. has died. The nausea and vomiting which began on the operating-table did not entirely pass away until just before his death (11 A.M., Dec. 18th); with the exception of one slight attack of retention and an increasingly ammoniacal urine, there were no symptoms pointing to the foreign body in the bladder. His urine was passed in large quantities, and almost invariably without pain. A severe attack of cervical neuralgia, complete anorexia, insomnia, and slough of perineal opening helped the fatal issue. It does not seem that the catheter in the bladder was at all responsible. The prolonged vomiting from the chloroform did the most.

## GELSEMINUM FOR HECTIC.

By EDGAR HOLDEN, M.D.,

NEWARK, N. J.

It is by no means a new or Hahnemanian doctrine that special symptoms may be treated without regard to the essence of the disease; for whatever books may have taught, teachers and pupils alike have been compelled to give heed at the bedside to devices and remedies for the arrest and control of one of the symptoms of consumption, viz., hectic, the harassing chill, the diurnal fever which exhaust the patient and try the courage of the physician.

Fortunately it is not always a prominent symptom, but it is almost always sure to occur sooner or later in the course of the disease, and often so persistently as to destroy entirely the patient's hopefulness and courage.

Pollock says that of 1,200 cases fifty per cent. had hectic on admission to the hospital, and in the cases studied by Louis, a majority had rigors and fever on admission. In twenty per cent. it persisted in spite of remedies from the beginning to the end. In sixty per cent. it began in the second stage, but perspiration followed the fever in only ten per cent. of those who suffered from the chills. His treatment seems to have been simply by the febrifuges then in vogue.

It is somewhat interesting to note the remedies of the past in this matter.

Thus Poterius advocated tin, antimony, and nitrate of potash; Reid, nitre and tartar emetic; Sydenham, infusion of rhubarb in beer; Galen, vinegar and water; Orban (Thompson's Materia Medica), the same, with alum and sulphate of iron.

Digitalis, opium, etc., are familiar, and as homœopathic physicians have laid claim to some success in this matter it may be of interest to enumerate their remedies.

Inquiry of several physicians prominent for their adaptation of experience and common sense to their

practice, in spite of dogmas or favorite tenets, has resulted in replies equally courteous and plausible.

Cinchona and its alkaloids predominate. Sulphuric, nitric, and phosphoric acids; iodine, arsenic, and carbonate of lime, with the usual hygienic measures, are resorted to according to the phase of the disease and the condition of the patient.

Not to elaborate this part of the subject it will repay any thoughtful mind to ask the question, What is the immediate cause of the phenomenon? The most prevalent opinion is probably, aggressive, local inflammation. With many, and perhaps the more eminent in the profession, it is ascribed to the absorption and circulation of pyogenic matter. This is the opinion of Ruehle in his recent masterly exposition of the whole subject of phthisis and tuberculosis.

These, however, are not wholly satisfactory even to their advocates; because not fully explaining the phenomena; and after all, would not the statement that irritation is present, and *par excellence* irritation of the ganglionic system, be more adequate and yet in no wise conflict with the opinions expressed?

There is to my mind so clear a relation between the irritative chill of neurasthenia or fright or indigestion, the chill of inflammation, which is of necessity a prodroma of fever, and the chill from septic absorption which also necessitates the idea of fever, that it appears singular that it should ever be overlooked. In all, the element is "irritation," and irritation of a special system of nerves. In the two latter our attention is so soon absorbed by the disease to be counteracted that the first exhibition of the rebellion of the system is forgotten.

Now whether in phthisis the source of immediate irritation is pyogenic absorption, persistent inflammation, profuse exudation of albuminous matter, or the mere presence of the unabsorbed products of slow inflammatory action, or perhaps some peculiar condition accompanying caseous degeneration, the essence of the phenomenon is the same, viz., irritation.

By this and similar process of reasoning I have been led to ask to what extent the remedies thus far advocated have power to reach this, and have been surprised to find that they have analogous action under other circumstances, although here used empirically; and have asked further whether there be not some better and more philosophical deduction in the way of remedy. The answer is the title of this article.

The preparations of gelseminum have been steadily growing in favor for several years, and from an extended experience with them, partly upon theoretical and partly upon inferential grounds, I was led to try them in cases of hectic, which had resisted other well-known remedies until its pre-eminence has become so conclusive as to suggest its recommendation to the profession. Four years ago, in experimenting with it, and testing its action on the heart and pulse with the sphygmograph,* I observed that the number of respirations was reduced before its toxic influence was manifested. Several deaths from over-doses, recorded in the journals, showed an action upon the respiratory centres similar to that of curare or woorara. Practical experience, moreover, with it, in small doses, has long shown its influence upon circulation and its sedative effect in certain neuralgias.

Finally, a writer in the *Lancet* for September of the current year collates the accounts of death from the drug in poisonous doses, and in the summing up shows that sedation and finally paralysis of the respiratory centres has been constantly present.

Now from these facts the inference has appeared a correct one that it should act favorably in the treatment of a respiratory affection characterized by irritation, and having its seat and origin in the pulmonary tissues.

In a very large number of cases it has not failed, and without giving them in detail it will probably suffice to say that I have in prescribing it, even after the failure of favorite and well-known remedies, acquired confidence in it, and have found that in doses of two drops of fluid extr., or 10 to 12 of the tincture every two hours, it will, in most instances, within forty-eight hours arrest the chill, moderate the cough, and allay the fever. The period of administration, however, is not always so short. It may be used continuously if necessary to maintain sedation, and without interference with other medicines or effect upon digestion or the excretions. It should be added that exceptions are likely to occur in cases with mesenteric complication and colliquative diarrhœa, and while not contra-indicated, it may sometimes disappoint expectations.

# Reports of Hospitals.

## THE EPISCOPAL HOSPITAL, PHILADELPHIA.

### Notes of Practice and Peculiarities of Treatment.

(Prepared for The Medical Record.)

#### TYPHOID FEVER.

There have been a number of cases of this disease in the wards within the past six months, but treatment has been so successful that but one death has occurred. The patient is maintained upon a soft diet. Dr. William H. Bennett reduces the temperature and strengthens the heart by fifteen-drop doses of the tincture of digitalis, and two grains of quinia, given every three hours. Stimulants are only employed in the severer cases. Dr. Louis Starr controls excessive diarrhœa by injections containing fifteen drops of laudanum and f. ʒ ss. of starch. Dilute muriatic acid is given in fifteen-drop doses every three hours, and in the second week of the disease five drops of turpentine are given every three hours. Hemorrhage from the bowels is controlled by the internal use of ergot and the local application of ice (to the abdomen). Dr. J. Anders, the resident physician, in the absence of the attending physician last summer, treated a number of cases in the second week of the disease with one-fourth grain doses of the nitrate of silver, repeated every three hours, with apparently negative results.

#### ACUTE ARTICULAR RHEUMATISM

Is treated chiefly with alkalies and the iodide of potassium. Salicylic acid has been employed, but the salicylate of soda is considered preferable to it.

#### COUGH.

Numerous trials have been made in the wards, by Dr. Bennett, of Dr. J. Milner Fothergill's boasted cough mixture, from the use of which he claims such excellent clinical results, viz.:

℞. Acid hydrobrom..... gtt. xx.
Ex. scillæ..... gr. ss.
Chloroformi spts..... f. ʒ ss.
M.
S. Every three hours.

* Prize Essay, p. 150.

with but indifferent results. The experience of the attending physicians has been that it does not at all take the place of morphia, as is claimed by Dr. Fothergill.

PHTHISIS.

Dr. Starr has lately employed the phosphates very generally in the advanced stages of this disease, and with very excellent results, using such preparations as the syrup of the hypophosphites, the vitalized phosphates, etc., etc.

DELIRIUM TREMENS.

A case of this disease has been treated advantageously with twenty-grain doses of the bromide of potassium every two hours, and forty grains of chloral hydrate at bed-time, to be followed six hours later, if necessary, by a twenty-grain dose of the hydrate.

PNEUMONIA.

Quinia is given daily in quantities ranging from 12 to 15 grains in the course of the twenty-four hours. The diet consists principally of milk punch. The circulation is kept up by generous doses of the tincture of digitalis.

THE VOMITING OF PREGNANCY.

A good prescription is, viz.:

℞. Cerii oxalat..... gr. i.
Ipecacuanhæ ..... gr. i.
Creasoti ..... gtt. ij.
M.
S. To be taken every hour.

CHOREA.

Dr. Wharton Sinkler has controlled the twitchings of patients with this disease by the continued hypodermic injection of from three to five drops of Fowler's solution. In some of the instances the injections were followed by a good deal of local irritation.

HÆMOPTYSIS.

Dr. Starr has injected hypodermically from two to three drops of the fluid extract of ergot in this condition with most excellent effects, always rapidly stopping the hemorrhage.

LOCAL RHEUMATISM AND SCIATICA.

In Dr. Bennett's hands hypodermic injections of one-eightieth of a grain of atropia and one-eighth of a grain of morphia directly into the substance of the affected muscle have always afforded immediate relief, although this relief, as a usual thing, is only temporary. In cases of sciatica Dr. Starr has injected the one-eightieth of a grain of atropia into the tissues directly over the track of the painful nerve with manifest benefit. Dr. Wharton Sinkler, in several cases of local rheumatism, has tried the local injection of ether—gtt. x. in water. Though this injection generally relieves the pain, yet it is of itself always a most painful operation, owing, no doubt, to the local irritation caused by the ether.

THE ASSIMILATION OF COD-LIVER OIL.

Some months ago Dr. Wm. H. Bennett instituted a series of experiments regarding the assimilation of cod-liver oil by the system. The stools of a number of patients, placed upon the daily use of this article, were carefully examined, and it was found that in the majority of cases these stools were oily, showing that the cod-liver oil had simply passed through the alimentary canal without absorption. Where the stools were oily, the patients appeared to have derived no benefit from the use of the oil; but in the few cases where the stools were not oily, and where the oil had consequently been absorbed, the patients had grown fat.

Quite recently Dr. D. J. Milton Miller, the medical resident, has conducted a second series of experiments of the same nature, and has obtained like results.

INTERMITTENT FEVER.

Dr. Bennett has lately tried the carbonic acid treatment of the paroxysms, recommended by a surgeon in the British navy, with entirely negative results. This treatment consists in the administration of twenty grains of tartaric acid and thirty grains of the bicarbonate of sodium every half hour for two hours previous to the appearance of the paroxysms.

CHRONIC LEAD-POISONING.

The patient was under Dr. Bennett's care for a long time, with the most marked symptoms of the disease, before any insight could be gained into the cause of the malady. It was at last discovered that the disease first manifested itself when he was cleaning out some leaden sugar moulds. When seen the patient exhibited great debility and a well-marked blue line round the gums, together with the most extraordinary degree of pallor. There was an aortic organic murmur to be distinguished, but, all things considered, the profound anæmia seemed to have arisen as a direct consequence of the lead-poisoning. The treatment was by the iodide of potassium and the elixir of iron, quinia, and strychnia.

Dr. Louis Starr treated a case of the same disease lately under his care with ʒ ij. of the sulphate of magnesium, each morning, and with sulphuric acid lemonade as a constant beverage.

DIGITALIS BY HYPODERMIC INJECTION.

Dr. Starr has recently been employing digitalis hypodermically with much success in cases of advanced phthisis and of heart failure. The injections at first contained gtt. v. of the tincture of digitalis and ℥x. of water. The effects being negative, the amount of the digitalis was increased to gtt. x., with the most decided effects. The pulse fell at once from 120 to 105 in the minute. At one time as much as gtt. xv. of the digitalis were injected with great advantage.

ATROPIA AS A PREVENTIVE OF PYÆMIC CHILLS.

In several instances of abscess of the liver and of pyæmia Dr. Starr administered the one-ninetieth of a grain of atropia by hypodermic injection and the one-sixtieth of a grain internally to prevent the distressing chills consequent upon these conditions. This remedy acted like a charm. The effects of the dose or hypodermic injection given in the morning lasted through the following twenty-four hours. The same was the case with the belladonna-bath (tr. belladon., f. ʒ ij.; spts. frumenti, f. ʒ ij.; aquæ, f. ʒj. S. To be applied to the whole surface of the body by sponge at bedtime).

THE INJECTION OF DIALYZED IRON.

Dr. Bennett injected dialyzed iron hypodermically in several instances recently, and, while the constitutional effects were still negative, was obliged to desist, owing to the severe local irritation produced at the points where the needle entered the tissues. This experience coincides with that of Dr. J. M. Da Costa, at the Pennsylvania Hospital.

# Progress of Medical Science.

ASPHYXIA IN THE NEW-BORN.—An interesting case of asphyxia in the new-born is reported by Dr. H. J. Garrigues, in which the child made the first inspiratory gasp *two hours and a half* after delivery. At birth the face was violet, the hands and feet blue, and only a few slow and feeble beats of the heart showed that life was not extinguished. As for the comparative value of the different means employed to induce respiration, the insufflation of air through an elastic catheter was found to give the best results. Of the other means used, the irritation of the mucous membrane of the nose by a feather, and by the vapor of ammonia, and of the skin by the momentary application of ice, had the most marked effect. The object in publishing this case is to emphasize a point upon which most of the text-books are not very explicit, viz., *that if only the heart beats, the life of the child may be saved, even if spontaneous respiration does not appear for hours.*

Cases like this present a great *medico-legal interest*, and instances are cited where the settlement of large estates turned upon the question of the life of the child. The laws of different ages and of different countries prescribe different signs to constitute evidence of life. The slightest trace of vital action, in its common and true physiological acceptation—such as crying, breathing, pulsation, or motion—observed after entire birth and separation from the mother, would be deemed in English law a sufficient proof of the child having come into the world alive. In the present case the child died seven hours after birth.—*Reprinted from the American Journal of Obs.*, October, 1878.

NOTE ON THE STRUCTURE AND MODE OF FORMATION OF THE GIANT CELLS OF TUBERCLE.—MM. Charcot and Gombault have, after careful study and experiments, come to the conclusion that the giant cell of tubercle is a multicellular nodule, and not as generally believed a single cellular element. When a giant cell is isolated from a tubercular nodule and brought under the microscope, it is seen to be covered on all sides with processes composed of a granular, refracting protoplasm, having a strong affinity for picric acid; the peripheral portion of the cell is occupied by numerous nuclei, while the central portion consists of a granular, refracting mass, which has a very characteristic appearance. Light tapping on the covering glass causes the separation from the mass of the cell of a certain number of cellular bodies, each of which contains one or more nuclei and carries off some of the peripheral processes just spoken of. Other bodies exactly similar to these are only partially separated from the giant cell. The former are evidently epithelioid cells, which have been closely united with the giant cell, while the latter only differ from them in the fact that their connection with the giant cell is still more intimate. In the nuclear zone of the giant cell the lines of junction of these cellular bodies can often be distinctly perceived, but they disappear entirely in the central granular mass. If the tapping be carried on farther, the giant cell is sometimes resolved into a number of smaller masses, each containing several nuclei, and evidently cellular in its structure.

Sections of the giant cells furnished some important information. Three successive cuts of the same cell, which is taken as an example, presented the following appearances: No. 1 presented a true multinuclear plaque. In the centre of the plaque the nuclei were crowded closely together, but towards the periphery they became more and more sparse. From the periphery extended in all directions a crowd of processes with thick bases and attenuated apices, which were lost in the surrounding tissue. No. 2 presented the giant cell with what may be called its classical characters: centre granular, refracting, and structureless; outside of this a zone of nuclei; beyond this still very numerous processes radiating in all directions. In one place the zone of nuclei was interrupted for a certain space, and at a point corresponding to this hiatus the processes were almost entirely wanting. This fact was taken as a fresh intimation of the intimate relation existing between the nuclei and the processes. No. 3 finally presented a small mass of cellules with brilliant protoplasm and indistinct contours; at the centre of the mass the cellules were grouped about a narrow opening which could be followed to a certain depth in the cut. The giant cell varied in size as well as in shape and constitution, in the different cuts. If the volume of the cell in cut No. 3 be taken as the unit of measure and represented by 1, its volume in the second cut would be represented by 3, and in the first by 2¼.

MM. Charcot and Gombault think that the facts noted justify the following deductions: First of all, the giant cell tapers towards one and perhaps both of its extremities. Second, both the pedicle and the peripheral zone of the dilated portion of the cell have a purely cellular structure, but in the latter region the elements have undergone a modification, as a result of which they are soldered together by a partial fusion of their protoplasms. The characters of this modification are most marked at the periphery; they consist in the swelling of the protoplasm, its granulated aspect, its tendency to fusion, its peculiar refractive power, and its affinity for picric acid, to the exclusion of carmine. All these different changes, however, are also met with in other parts of the tubercular new-growth, and it is through them that the epithelioid zone of the tubercular follicle is produced. The cells lining the pulmonary alveoli and the endothelium of vessels of a certain calibre, also undergo, under certain circumstances, a similar modification. The nature of this degeneration is unknown, but it may be designated by the term "vitreous transformation," and its effects, as MM. Charcot and Gombault believe, are analogous to what takes place in the peripheral zone of the giant cell. The cellular elements increase in size, the nuclei proliferate, and the protoplasm takes the above characters; then the cells fuse together in greater or less numbers, the lines of separation disappear, and thus structures are formed, resembling to some extent the giant cells. Moreover, it is known, that the ordinary end of this vitreous transformation is caseous degeneration, and the resemblance between the central caseous matter of a tubercular granulation and the central substance of a giant cell is very striking.

From these considerations our observers deduce the conclusion that the central mass of the giant cell had at one time the same cellular structure as has been demonstrated in its pedicle and its peripheral zone, the elements having undergone first an epithelioid transformation, and then caseous degeneration. Hence, it follows that the giant cell is not a single cellular element, but a multicellular nodule, at the centre of which the tubercular process has attained its limit of development.—*Gazette Médicale de Paris*, August 24th.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, March 1, 1879.


## ANTISEPTIC SURGERY.

THERE is scarcely a subject of greater interest to the surgeon, and, it may be added, to the general practitioner, than that of the management of wounds, for upon this often depends the well-being and life of his patient. From the remotest time the care of wounds has received the attention of some of the best minds in the profession, and yet, notwithstanding the advances that have been made in pathological and physiological studies, there is still a want of agreement among practical surgeons in regard to this subject. The low rate of mortality after capital operations, in the practice of some surgeons, cannot be attributed entirely to any peculiar mode of performing the operation, to the pathological condition demanding surgical interference, nor to the condition of the patient—although the two latter elements are no small factors in turning the scale either toward a fatal termination or recovery. There is still another factor, namely, careful personal attention to every detail in the after-management of the case, to which, more than any other, this low rate of mortality must be assigned. Within the last few years a new impetus has been given to the study of the cause of failure of immediate union in wounds, and of the frightful rate of mortality that has prevailed in hospitals at home and abroad, and practical men are now turning their attention more to surgical dressings and the care of wounds than to any new mode of operating or the invention of complicated instruments. The tendency is toward simplifying, rather than complicating, surgical procedure.

The visit of Mr. Lister to this country in 1876 afforded him an opportunity to explain his views on the management of wounds, and since then the Lister plan of the treatment of wounds has gained many advocates in hospitals in this and other cities. It is a matter of record that the mortality, both in hospitals and private practice, has been greatly diminished since the antiseptic treatment of wounds has been adopted. But, while due credit must be given to Mr. Lister for his labors in this direction, we must not shut our eyes to the brilliant results that have followed other plans of management of wounds after operations by other surgeons. We are all liable to be carried away by anything that has an air of mystery about it, or is new, and before we are aware of it we find ourselves advocating and practising modes of procedure that a sober second thought would cause us to reject or greatly modify. That there is much in antiseptic surgery, speaking of it in a general way, no sane man will deny; and the great problem that is being worked out now is, what is essential, and what can be discarded in carrying it out. The aim of every one, when called upon to treat a wound, is to obtain union as by first intention, and in order to attain this there are certain rules of surgery that are as familiar as household words, and which experience has taught us to follow, namely, perfect coaptation of the edges of the wound, and absolute rest. Now, the two disturbing elements preventing primary union, are: 1, tension from effusion of blood or serum, causing separation of the edges of the wound; 2, inflammation and suppuration followed by putrefaction and secondary phenomena, which we designate as surgical fever, pyæmia, and septicæmia. Mr. Lister has demonstrated that by one plan at least, in the majority of cases, these disturbing influences can be prevented, and wounds can be made to heal by first intention without putrefaction with its attendant danger, and that mortality in hospitals can be reduced almost to zero.

The theory on which Mr. Lister insists as the cause of putrefaction, non-union, and its attendant results, is that known as the germ theory, and to prevent these germs from planting themselves in the wound is the aim of all antiseptic precaution.

That wounds will heal perfectly without suppuration, treated upon the old plan, is a well-known fact, and proves that contact with the air is not necessarily followed by suppuration, and even when a wound heals by granulation there is not necessarily any infection of the system. Yet Mr. Lister, and those who have followed closely in his footsteps, have certainly obtained better results that those who have treated wounds on the old plan. But other surgeons, who have treated these amputations in accordance with plans diametrically opposed to the antiseptic method as proposed by Mr. Lister, or who have omitted certain precautions which Mr. Lister has insisted upon as being essential, have had as good results as claimed by those who followed strict antiseptic rules as laid down by him. We think that it is time to examine this question of the treatment of wounds, and see if a careful review of the different methods will not point out what are essential and what may be discarded.

1st. There is the open method introduced by Kern, a Vienna surgeon, and now advocated by Dr. James R. Wood, at Bellevue Hospital.

2d. There is the cotton-wool dressing of M. Guérin.

3d. The modified antiseptic method of Mr. Callender.

4th. The dry dressings of Mr. Gamgee.

5th. There is the strictly antiseptic dressing, so-called, of Mr. Lister.

Dr. Dennis, in describing the open method as advocated by Dr. Wood, states: The cardinal principle involved in this method of dressing is that of preventing suppurative fever, and this object is best obtained by leaving the stump entirely open, thus allowing free and continuous drainage. There are no sutures used; the wound is simply kept scrupulously clean, and every precaution is taken to prevent contamination from any other wound. Carbolic acid is freely used. By this plan Dr. Wood has had fourteen consecutively successful amputations of limbs in a ward that had been vacated the previous year in consequence of puerperal fever, and in a hospital whose sanitary condition has always been considered bad.

M. Jules Guérin, in 1875, adopted raw cotton as a dressing for wounds, filling the cavity with small masses applied accurately to every part of the surface, and then layers of wadding were applied over and around the stump, and over all a bandage was put on with great care, with as much compression as possible, the wound being first thoroughly washed with some germ-killing fluid. He found it the best plan to leave the dressings on for two weeks without change, and if the discharge appeared through the cotton, to apply another layer. His results were much better than that of other surgeons in the same hospital, treated upon the old plan. Dr. Wood and M. Guérin did not aim at primary union; their plan was to prevent accumulation of fluid in the cavity of the stump.

The aim of Mr. Lister was, first, to prevent any contamination of the parts by contact with germ-laden air from instruments in the hands of the operator or his assistants; second, to obtain primary union and to secure pefect drainage, and to prevent putrefaction from the pus coming in contact with the air. The methods insisted upon by Mr. Lister are so well known that we need not enumerate them. Mr. Callender, at St. Bartholomew's Hospital, has for some years adopted the following method of dressing wounds: he uses torsion on all the arteries; he then brushes the cut surface with a forty-grain solution of chloride of zinc, or one to twenty solution of carbolic acid. He carefully unites the edges with silver sutures, and inserts drainage-tubes to relieve all tension; over the wound he places a piece of lint soaked in a solution of carbolic acid and oil, one to twelve, and surrounds the whole with cotton wool. He puts the parts absolutely at rest, not only the limb, but of the system, by the use of opiates. Under this plan he has had twenty consecutively successful cases of amputation of the thigh, and, out of thirty amputations of limbs during a year, had no fatal case.

Lately Mr. Gamgee has advocated what he calls the treatment of wounds by dry and infrequent dressings, rest, and pressure. He unites the edges of the wound with silver sutures, places a gauze and oakum pad over the wound, provides for perfect drainage by rubber tubing; he then envelops the part in cotton-wool, and applies a splint, if it be a limb, so as to insure absolute rest to the parts. In this way he treated a wound into the knee-joint, and when the dressings were removed on the ninth day the wound had entirely healed. There had been no pain or elevation of temperature. We might refer to other methods of treating wounds, but the above will suffice for our purpose. Let us turn for a moment to these five methods and see what is common to them all, and in what they differ, and *first* they all insist upon *perfect drainage, cleanliness, and rest.* Messrs. Callender, Gamgee, and Lister, in addition, insist upon perfect coaptation. Mr. Lister alone is an advocate of the spray, and considers it of as great importance as his drainage or antiseptic dressings. The plan of Mr. Lister is expensive, requires considerable experience, and more personal supervision than any of the other methods, and at the same time more handling of the parts; and the question naturally arises, Is it superior to any of the others, and cannot equally good results be obtained by a modification? And first we would again refer to the results of Dr. Wood's experience at Bellevue in proof of the fact that contact with the air is not necessarily followed by surgical fever, and that cleanliness with exposure to the air will prevent putrefaction—the same may be said of Green's method; the objection to these plans is that they do away with primary union, and therefore keep the patients longer under treatment.

Mr. Callender's mode of treating wounds may be said to be antiseptic without the spray. His results at St. Bartholomew's Hospital, after capital operations, have never been equalled. As a further proof that the spray can be done away with, the plan of treating compound fractures by Mr. Lister himself is to the point, as proving that washing out a wound with a one to thirty solution of carbolic acid gives as good results as are obtained by the use of the spray in operations, notwithstanding the fact that there is usually considerable laceration of the soft parts, and often foreign substances in the wound in compound fractures. If we mistake not, Mr. Bryant's plan of sealing up the wound in compound fractures with Tr. benzoin co. was attended with marked success, even without washing out the wound with a solution of carbolic acid.

Experience seems then to point to a modification of

Mr. Lister's antiseptic plan. There is a growing conviction that the spray can be dispensed with, and that a thorough washing of the cut surfaces with an antiseptic fluid will accomplish the same end. Again, some surgeons omit the gauze, others use only a few layers in the place of eight, as insisted upon by Mr. Lister; some are trying other absorbents, as jute, etc.; but the end aimed at by all is the same, namely, to obtain perfect drainage, cleanliness, and rest. If we were called upon to decide what was the most important element in Mr. Lister's dressing, we should say that it was his system of drainage, and to this more than anything else must be attributed his success. This, together with cleanliness and rest, is the principle common to all methods of dressing wounds, and to this conclusion the experience of surgeons here seem to point.

Mr. Spencer Wells says, in regard to this point: "With regard to the spray, I have very grave doubts myself whether it is an essential or useful part of antiseptic treatment . . . . In a word, let us regard antiseptic treatment not as a substitute for those measures which have already proved effectual, but as an additional safeguard." The old rules of surgery that have stood the test of years are as true now as ever, and all advance we may hope to make is in more perfectly carrying out the indication they point out, namely: perfect coaptation, perfect drainage, cleanliness, and absolute rest. Antiseptic treatment is only so far an advance in the right direction as it aids us in carrying out more perfectly these rules.

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### ANTHROPOLOGICAL STUDY.

A RECENT examination of the body of a male chimpanzee in Philadelphia, by Prof. Leidy, of the University of Pennsylvania, is a matter of interest to anthropologists generally. It will be recollected that within the past year we had occasion to notice an examination of a similar specimen by Prof. E. C. Spitzka, of this city. The examination by Prof. Spitzka was the first one of this kind that was made of the brain of the chimpanzee, and established some important facts ralating to the development of this organ. In his specimen the dimensions, the outline, and the proportions of the brain were similar to those of the newborn infant, as might be inferred from the size and the shape of the cranium. There were, however, several distinctive features which became apparent on careful examination. The cerebrum overlapped the cerebellum, consisted of the same number of lobes as in the human subject, was as rich in convolutions as the brain of the Bechuana, and possessed an island of Reil, with the addition of an operculum for the occipital lobe. The trapezium was absent, as in the human subject, and the olivary bodies were present, the latter being well developed and causing the usual prominence of the medulla.

The dissection made by Prof. Leidy bears out the conclusions reached by Prof. Spitzka, so far as the general conformation of the brain is concerned.

We have learned incidentally that an examination, made a few weeks since by Dr. H. C. Chapman, of Philadelphia, of the brain of a female chimpanzee, presented some marked anatomical differences from those recognized in the male specimens. It is presumed, however, that these differences are more in degree than in kind, and possibly may be explained upon the supposition that the brain of the male specimen is better developed than that of the female. From all accounts it would appear that the brain examined by Prof. Leidy was an unusually large one, as it is reported that the cerebellum was quite, if not entirely covered by the cerebrum. But the marks of differences between the male and the female specimens are more noticeable when the conformation of the vocal organs is considered. The male, who is noted for his loud and piercing cry, possesses the anatomical peculiarity of a natural bagpipe, which communicates with the larynx, extends to the breasts, into the arm-pits, and is covered by powerful muscles. The other organs of the bodies examined presented no peculiarities worthy of notice. We are glad to learn that Prof. Leidy will make a detailed examination of the body, and present the results in a paper to the Academy of Natural Sciences. Such a subject in the hands of this distinguished anatomist cannot fail to be treated in a manner which will be highly satisfactory to all who are directly or indirectly concerned in the study of anthropology.

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## Reports of Societies.

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### NEW YORK ACADEMY OF MEDICINE.

#### SURGICAL SECTION.

*Stated Meeting, January* 14, 1879.

DR. STEPHEN SMITH, CHAIRMAN.

#### GROWTHS AND FOREIGN BODIES IN THE AIR-PASSAGES: DIAGNOSIS AND SURGICAL TREATMENT.

DR. LEAMING introduced the discussion upon the above subject by reporting a series of cases.

CASE I.—In 1860 a gentleman called upon him and told the following story: While running, with a ten-cent piece in his mouth, to catch a ferry-boat, the coin slipped and passed downwards. He had a slight cough when it first went down, but no violent symptoms. The accident happened in the morning, and late in the afternoon he called at Dr. Leaming's office. The symptoms were so slight that the doctor thought the man had swallowed the coin, but the patient insisted that he could hear something in his chest. On listening carefully at the junction of the third rib with the sternum, a certain sound could be heard, as of something turning over. Such a sound could be heard after the

occurrence of several respirations. Dr. Leaming then had no doubt that the coin passed into the trachea and lodged upon the right side at the septum, and did not completely shut off respiration upon either side at any time. He thought the residual air in the lung was sufficient to turn the coin over at certain intervals, and in that way explained the peculiar sound that could be heard upon auscultation, and also by the patient himself.

According to a plan of treatment adopted by an English surgeon, the man was advised to get upon a bed and then turn himself quickly upon the floor. The moment his head was thrown downward the coin flew out of the mouth and struck the floor with considerable force.

Case II.—A man was brought into St. Luke's Hospital in a state of suffocation, on account of a gummy tumor of the larynx.

Dr. Gurdon Buck performed tracheotomy at once, and the patient was immediately relieved. On the following day an operation was performed for the removal of the tumor. The patient continued to wear the tracheotomy tube and its shield. One night he awoke suddenly with a feeling of strangulation. On examination it was found that the shield was *in situ*, but that the tube had disappeared. The house-surgeon searched for the tube, but was unable to find it. It was supposed that it had reached the stomach, because the violent symptoms had subsided, and the patient was quite comfortable. He had been in that condition several days when Dr. Leaming saw him, and upon making a physical examination of the chest he was able to detect an abnormal sound upon the right side. A whistling sound could be heard over the chest, but it could be distinctly located at the middle and upper part of the interscapular space. In that region and over a space about an inch and a half in length, and about an inch in width, a peculiar whistling sound could be heard. It was believed that the tube had passed into the bronchi and lodged in the cul-de-cac of the first division. It was removed by an operation, and the patient recovered.

Case III.—The third case was seen with Dr. Jones. A man standing in a stable was chewing a stalk to which a timothy-head was attached. He suddenly coughed, and, with the forcible inspiration which as quickly followed, the timothy-head sailed through the larynx and passed into a bronchus before it was arrested.

Circumscribed pleurisy was developed upon the right side, and three inches above the diaphragm a line of pleuritic râles could be heard from the sternum to the spine. Above that point the lung was free. When he found that the lung was free down to that point, he made the diagnosis that the timothy-head had penetrated the pleura and passed into the liver. The diagnosis, however, was wrong. The man lived about one week. In the meantime the timothy-head was thrown up in an act of coughing and vomiting. At post-mortem it was found that adhesions had occurred between the pleural surfaces upon the right side, and that a sac had been formed with a valvular opening, so that when closed no breath-sounds could be heard below a certain line; but when the patient coughed it would be free, and then sounds could be heard below. The entire lung was destroyed, and hay-seeds were found scattered throughout the lung-tissue

Case IV.—A boy, who was holding in his mouth a collar-button, attempted to speak to another boy, and as he took a breath the stud passed through the larynx and down into a bronchus. He coughed considerably during the same night, but subsequently not very much local disturbance was produced. On auscultation a double whistling sound was heard in front, at the upper portion of the fourth intercostal space, and also behind; more distinctly, however, in front. It was believed that the button had passed down until it reached the *third* division of the right bronchus, and there lodged with the shank across the septum, so that the bronchial tube was dilated by the projecting extremities.

Evidences of pleurisy were developed, and were followed by those of lung consolidation.

After the lapse of some months, Dr. Markoe opened the trachea, introduced a probe, and loosened the body, and then removed it with a pair of curved forceps.

The boy quickly rallied from the constitutional disturbance produced by the foreign body, and made a good recovery. As soon as the operation was performed the double whistling sound disappeared.

Case V.—A portion of a peach-stone passed into the right bronchus. In that case no distinct adventitious sound could be heard; but over a portion of the lung there was complete absence of respiratory sound. An effort was made to dislodge the body by elevating the heels and lowering the head, but it failed.

An operation was advised, but the family objected. Pleurisy followed. After a time, during a violent fit of coughing, the foreign body was thrown out covered with mucus.

A second case in which the foreign body was a portion of a peach-stone, was also mentioned.

Case VI.—In a hospital patient, blood from an operation about the mouth trickled down into both bronchi.

At first there was simply severe and constant coughing, but little or nothing was expectorated.

At the end of two or three days pleuritic râles could be distinctly heard upon the right side over a limited space, and soon the same kind of râles could be heard upon the left side of the chest. Subsequently it was readily determined that consolidation of lung-tissue had occurred. Death took place on the sixth day. At post-mortem, consolidation of lung-tissue was found, small abscesses in direct connection with the clots, evidences of older pleurisy, and a large amount of plastic material at the lower portion of the pleural cavity.

Case VII.—A hospital patient, upon whom an operation affecting the jaw was to be performed, suddenly vomited while a tooth was being extracted. The tooth slipped from the forceps and disappeared. The patient coughed considerably on the next day, and also on the day following, when Dr. Lefferts, then house-surgeon, made the diagnosis that the tooth had entered the air-passages, had lodged in the left bronchus, completely obstructing it.

Evidence of pleurisy followed, and subsequently evidence of lung consolidation. The entrance of air into the left lung was completely prevented until abscesses had formed, when air could be heard passing the tooth. No operation was performed for the removal of the foreign body. The case terminated fatally.

At autopsy the tooth and abscesses were found as diagnosticated.

When the obstruction was such as to completely prevent the entrance of air into the lung, the complete absence of respiratory sound could be taken as evidence with regard to the position of the foreign body. That might occur with such a body as a tooth.

With such irregular bodies as coins or tubes, or buttons, their position could be determined by the location of the sound produced by the air as it passed them, provided they were above the residual air.

The first lesion in the case in which blood had passed into the bronchial tubes was the pleurisy.

DR. F. V. WHITE asked Dr. Leaming how he explained the common occurrence of the pleurisy in the cases reported?

DR. LEAMING replied that the sympathy between the bronchial tubes and the pleura was very marked, and that irritation of the bronchi was very commonly followed first by pleurisy and then by pneumonia.

DR. WEBER remarked that he was not able to accept the explanation of the occurrence of pleurisy, after the lodgement of foreign bodies in any part of the bronchial tube, upon the basis of sympathy between the bronchial tubes and the pleura. The foreign body doubtless would cause local irritation, and in response to that irritation a certain kind of pneumonia might be developed, which would rapidly extend, and produce a certain amount of pleurisy. There might be sufficient pleuritis to give rise to friction-sounds, but he believed that it was preceded by pneumonia; that the pneumonia existed, but was not sufficiently well developed to give rise to bronchial breathing. If the occurrence of the pleurisy was to be explained upon the basis of sympathy between the bronchial tubes and pleura, pleurisy should be a common complication of bronchitis.

DR. LEAMING remarked that bronchitis and pleurisy were very frequently associated with each other.

DR. WEBER thought it impossible that such an opinion could be correct.

DR. POST referred to a case in which a persimmon seed passed into one of the bronchi, and there remained for a long time. The patient, one of his former pupils, had a cough, which was attended by a purulent expectoration and emaciation, and he presented the appearance of one suffering from pulmonary consumption. Hectic fever was well marked. Finally, during a violent fit of coughing, the foreign body was ejected, and the patient made a good recovery.

He further remarked that, in the English case referred to by Dr. Leaming, tracheotomy was first performed in order to avoid suffocation from spasm of the glottis in case the coin was dislodged and passed through the larynx. For the removal of such bodies as smooth pieces of coin, the operation and the sudden change in the position of the patient was proper; but if the foreign body was irregular in shape, and rough, probably not much could be accomplished in that manner.

DR. STEPHEN SMITH asked if it would be proper to perform tracheotomy in cases in which the coin was no larger than a ten-cent piece?

DR. LEAMING thought it would be well to have a surgeon ready in case the operation became necessary.

DR. POST believed that it was better to first perform tracheotomy as a matter of safety, for the operation was not a dangerous one, and in case spasm of the glottis was produced by the foreign body, the patient might die from suffocation before relief could be afforded.

DR. WEBER thought it proper to first perform the operation of tracheotomy.

DR. POST referred to a post-mortem examination which he made many years ago upon the body of a child who died in consequence of the inhalation of a piece of a peanut-shell into the trachea. Some time previously the child had swallowed the fin of a fish. The forcing body had perforated the intestine, had become surrounded by a band of false membrane, forming such attachment as to leave an opening through which, in a violent fit of coughing caused by the peanut-shell in the trachea, a large mass of intestine was forced, and then became strangulated.

Towards the close of the case the abdominal symptoms masked the thoracic symptoms.

In this connection mention was made of Dr. Buck's case, in which a fish-bone remained in the air-passages *fifteen years*, and was then expelled by coughing.

DR. ROBINSON referred to the value of the laryngoscope in deciding that the foreign body was *not* in the larynx. He also inclined to the opinion that more recent observations had proven that it was not well to operate for removal of foreign bodies from the bronchi, for the reason that a greater number recovered when left to the efforts of nature.

DR. GARRISH referred to a case in which a cherry-stone dropped into a gentleman's mouth and disappeared. About four weeks afterwards he began to cough and expectorate, his health began to decline, and he became extremely emaciated.

At the end of eight or nine months the doctor saw him, and prescribed a cough mixture, which happened to cause the patient to vomit. While vomiting, the cherry-stone was thrown out, and from that time the man began to improve, and made a rapid recovery.

DR. BURRALL regarded the laryngoscope as a valuable instrument to give us negative evidence in these cases, when it could be employed.

He referred to a case in which a needle was swallowed and became fastened in the throat, and in that instance he thought he made a practical deduction. The spasm was so great that the laryngoscope could not be used. The needle could be touched with the finger. The finger in the throat excited efforts to vomit, and with each effort the needle was raised, but not expelled. Firm pressure depressed the posterior part of the larynx, so as to increase the space, and after two or three efforts at vomiting the needle was expelled.

In the previous efforts the larynx had been raised against the pharyngeal wall, and so occupied the space that the needle could not be removed.

DR. WEBER reported a case in which, at the request of another physician, he performed laryngo-tracheotomy for the purpose of permitting the removal of a growth from the larynx. The subsequent history of the case proved that the patient had cancer of the œsophagus. In consequence of the pressure produced by the growth in the œsophagus the mucous membrane of the larynx presented a tumefied appearance, which led the physician to believe he had to deal with epithelioma of the larynx.

The Section then adjourned.

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*Stated Meeting, February* 11, 1879.

COMPOUND HARE-LIP.

DR. JAMES L. LITTLE presented three cases of compound hare-lip with cleft palate. The patients were three brothers, aged 22, 18, and 9 years. The father was born in England, the mother was a native of the United States. No deformity could be traced upon either side. The family consisted of nine children who were born as follows: First, a boy, with compound hare-lip and cleft palate. Second a girl, without deformity. Third, a boy, with compound hare-lip and cleft palate. Fourth and fifth, two girls without deformity. Sixth, a boy, with compound

hare-lip and cleft palate. Seventh and eighth, two girls without deformity. Ninth, a boy, who lived only a few hours, but was born with compound hare-lip and cleft palate. Four boys and five girls; all the boys born with deformity, and all the girls without deformity.

The only external deformity in the family, aside from the hare-lip, was absence of the ring-finger, and a peculiar twisting of the little finger, on the right hand of John Bocock, which gave it somewhat the appearance of a thumb. The index and middle fingers were also larger and longer than corresponding fingers upon the left hand.

On Wm. Bocock, æt. 22 years, four operations were performed. His lip before the operation had a wide cleft, the intermaxillary bone projected and held one incisor tooth, and there was fissure of the hard palate. The first operation was to close the fissure in the hard palate, and was only partially successful; the soft palate separated entirely, and the covering for the fissure in the hard palate almost entirely.

The second operation consisted in removing the projecting portion of the intermaxillary bone, and forming a septum for the nose with the integument by which it was covered. The operation was successful. Subsequently, an operation was performed upon the double hare-lip. That operation was followed by an attack of erysipelas, and was only partially successful.

Lastly, what is known as Nelaton's operation was performed, and the result was very satisfactory.

On John Bocock, æt. 9 years, two operations were performed. The intermaxillary bone projected and carried two incisor teeth. A septum was formed for the nose in the same manner as in the first case, and the operation was successful. Subsequently an operation was performed upon the double hare-lip, and the result was very satisfactory.

Chas. Bocock, æt. 18 years, had a very wide cleft in the mouth, but the projection of the intermaxillary bone was not so prominent as in either of the other cases. Dr. Little proposed to operate after the same general plan by which he had been guided in his operations upon the other patients.

Dr. Post exhibited a *daguerreotype* of a patient thirteen years old, upon whom he had operated for the correction of a deformity that equalled the worst features of any case which Dr. Little had presented. The result was such that no indentation was left in the margin of the lip. He thought it very important to make the incisions so that when the edges were brought together there would be considerable pouting at the junction on the margin of the lip. There was no danger of bringing too much material to that point.

Again, operations performed upon adults or half-grown children were usually followed by better results than in small children. The parts could be brought into more perfect apposition, etc.; still, it was not desirable to allow children to grow up with such a deformity. In cases in which there was fissure in the bony structure, early closure of the fissure in the lip exercised a certain amount of pressure, and diminished the breadth of the cleft in the hard palate.

Dr. Wm. T. White referred to a family in which three of the children were born with hare-lip and fissure of the palate. All died within a few days after birth.

Dr. Post referred to a family reported by Dr. Buck, in which the mother and five or six children had hare-lip.

Dr. Garrish referred to four families in which there were three children in each family who had hare-lip, either compound or simple.

Dr. Wiener referred to a family in which two children born of the first wife had compound hare-lip, but in none of the children born of the second wife did the deformity appear.

He thought it was next to impossible to secure such perfect coaptation of the parts at the first operation as could entirely correct the deformity. He had never seen a case in young children in which it was not necessary, after the child reached ten or twelve years of age, to operate to remedy the indentation in the margin of the lip.

With reference to closing the fissure in the hard palate, he thought an operation should be avoided, because the dentists had succeeded so well in making an artificial roof of the mouth, and at the same time the operation was quite commonly unsuccessful.

Dr. Little thought if the operation could be performed it was usually successful, and believed it to be bad advice to send such patients to the dentists. There were comparatively few patients who could bear the expense of the artificial appliance. In order to secure the best results so far as indentation in the margin of the lip was concerned, he thought it very important to secure perfect coaptation at the *upper* edge of the vermilion border.

Dr. Wiener referred to a case in which an opening in the hard palate about three-fourths of an inch in diameter was successfully closed by a button made of gutta-percha. The girl had learned to mould one herself, and made a new button as often as the old one became hard and gave her any discomfort. An artificial appliance was thus afforded which answered all practical purposes, and the expense was a mere trifle.

Dr. Post thought it well confirmed that a properly formed artificial palate was more useful than a united velum, and was preferable if the patient could afford the expense.

Dr. Little's communication was referred to the Academy.

### DEFORMITY PRODUCED BY A BURN.

Dr. A. C. Post presented a cast representing the hand of a child two years old. At the age of eight months the child received a burn by falling upon a stove. The injury was followed by a deformity. The hand was bent forcibly backward, and the only part not seriously injured was the thumb and the ring finger. Dr. Post operated by first dividing the cicatricial mass upon the back of the hand, and then dissecting out the little finger, and bringing it into parallel position with the ring finger. The index finger was atrophied and unfit to preserve, therefore the bones were removed and the skin was used as a covering for the middle finger, which was dissected out from the cicatricial tissue upon the back of the hand. He succeeded in obtaining a hand which did not present much deformity except that it had only three fingers, and one of these was considerably increased in size. To diminish the size of the finger another operation was to be performed. Dr. Post believed he had proved that the tendency to contraction in cicatricial tissue following a burn could be overcome, but in order to accomplish it great perseverance was necessary.

### REMOVAL OF FOREIGN BODIES AND GROWTHS FROM THE AIR-PASSAGES.

Dr. Clinton Wagner confined his remarks upon this subject to the removal of foreign bodies and growths from the larynx. With reference to lodge-

ment of foreign bodies in the larynx, according to his experience, it was exceedingly rare. In such cases if the foreign body could be seen by the laryngoscope, he would not be in haste to perform tracheotomy unless death from suffocation was imminent. He preferred to wait until tolerance had become established, and later on try to remove the foreign body by means of Mackenzie's forceps with the aid of a laryngoscope. He then referred to a case published in the London *Lancet* several years ago, in which a piece of bone one inch in length by three-fourths of an inch in breadth was successfully removed in that manner. With reference to growths in the larynx, his experience had been more extended. Nineteen cases had come under his own observation. In those cases he thought tracheotomy should not be performed unless breathing was interfered with, or death from spasm of the glottis was apprehended. Removal *per vias naturalis* should always be first tried.

With reference to preliminary treatment in such cases, he thought its necessity had been greatly overestimated. He rarely adopted any preliminary treatment, and made an effort at once to remove the growth. If unsuccessful the first time, he repeated the operation after the lapse of a few days. He never pressed the use of the forceps for a longer period than ten minutes at a single sitting. In the hands of one accustomed to their use, he thought Mackenzie's forceps devoid of danger. It had been claimed that lacerations, paralysis, perichondritis, or chondritis were apt to follow their use, but he had not seen any such unfavorable results.

In cases in which the growth had been allowed to increase in size to such an extent as to interfere considerably with respiration, no time should be lost by attempting to remove it through the mouth, and the extra-laryngeal method became necessary.

To summarize: in all cases of intra-laryngeal growths, removal through the mouth should be attempted, and he had not seen a case in which removal through the mouth could not be effected when the growth was situated above the vocal cords. The extra-laryngeal method of removal should be resorted to only when death was imminent from spasm of the glottis.

DR. GARRISH exhibited Dr. Physick's instrument for removing foreign bodies from the throat and œsophagus.

ENLARGED LYMPHATIC GLANDS—IODOFORM AND COLLODION.

DR. BURRALL referred to a single case in which there was a marked improvement in the general condition, and a diminution in the size of a bunch of enlarged lymphatic glands situated at the base of the neck in a scrofulous patient. The favorable change was apparently produced by applications of *iodoform dissolved in collodion*, one part of iodoform to fifteen of collodion, as recommended by Moleschott. He thought the remedy was worthy of a trial.

The Section then adjourned.

CORYZA.—Dr. Rudolpho Rudolphi recommends the use of eucalyptus globulus for the rapid cure of *acute* coryza, or cold in the head. He has found, by numerous trials on himself and patients, that after chewing a few of the dried leaves and slowly swallowing the saliva, the affection is promptly relieved, often disappearing in the course of half an hour. The remedy is useful in acute cases only.—*Gazz. Med. Ital. Lombardia*, January, 1879.

# Correspondence.

## THE AMERICAN PUBLIC HEALTH ASSOCIATION AND THE WITHERS BILL.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In your editorial comment on the excellent letter of Dr. B. F. Gibbs, published in the MEDICAL RECORD of the 15th inst., you have adverted to the fact that the Withers Bill, based upon a recommendation of the Executive and Advisory Committees of the American Public Health Association, and supposed to embody their views, leaves the whole matter of sanitary legislation virtually in the hands of an extra-medical scientific body, though the aforesaid authorized representatives of the Association had only asked that the Academy of Sciences should designate the members of a Provisional Health Commission who should be charged with the duties now proposed to be assigned to that Academy.

Whether the Association is willing to father the bill as it now stands may admit of a difference of opinion, but that the committee charged with this duty had no alternative, and that they acted within the limits of their delegated powers, will clearly appear from a brief statement, which I trust will satisfy both the Association and yourself.

This committee, consisting of Dr. J. M. Toner, Chairman, Dr. J. S. Billings, and Gen. Eaton, Commissioner of Education, having prepared a bill in strict accordance with the section of the memorandum cited by Dr. Gibbs, requested me to show it to two members of Congress who were expected to be the patrons of the measure, and to request them to present it to their respective wings of the National Legislature. In conferring with these and other friends in Congress, I was at once informed that there were grave constitutional objections to that feature of the bill which required Congress to delegate to parties outside of the Government the authority to appoint a Governmental Commission, and that this difficulty would be obviated by calling on the Academy itself to report to Congress a plan for a permanent Public Health Organization. When this was made known to the committee they promptly and unanimously decided to modify their bill in accordance with the suggestion and advice of our friends in Congress. Though not *ex-officio* a member of the sub-committee, I, as representing in part the Executive Committee of the Association, did not hesitate to take a full share of the responsibility that might attach to this departure from the precise plan indicated in the "Memorandum." In point of fact there was no alternative, as that plan had been rejected by those very members of Congress by whose aid alone we could hope to succeed in our efforts to secure desirable legislation, and we were shut out from falling back on the Lamar Bill, or any similar bill, by the express declaration of the "Memorandum" that "political or local considerations should have no weight in the matter, nor, unless there are grave legal or constitutional objections, *should any officer of the Government be burdened with, or allowed to assume the responsibility of selecting" the members of the commission.*

Some objection to the bill as it now stands is based upon the implied assumption that the National Academy of Sciences is composed exclusively "of gentlemen who have never given any attention to the subject, and whose studies are confined to astronomy, geology, entomology, and kindred subjects." This

is a most unwarrantable assumption, not at all sustained by the actual facts. I understand that every branch of science is represented in the membership of the Academy, and that its *personnel* includes several gentlemen who have a recognized position among the sanitarians of the United States, such as Dr. J. J. Woodward, of Washington, Dr. S. Weir Mitchell, of Philadelphia, Dr. J. C. Dalton, and President F. A. P. Barnard, of New York. Doubtless there are several others, but as I have not the list before me, I cannot now certainly specify them. I understand further, that when any subject is referred to the Academy by Congress, as for example, the question of the proposed consolidation of the various surveys, it is the custom to appoint a special committee composed of such members as have made a special study of kindred subjects.

Moreover, the bill to which you take exception, expressly requires that the plan for a permanent Public Health organization, to be reported to Congress by the Academy, "shall be prepared after consultation with the principal sanitary organizations and sanitarians of the several States, and of the United States, and *shall be accompanied by the evidence of their opinions and recommendations.*"

With such adequate safeguards against incompetent handling of the subject, and against abuse of the special authority proposed to be conferred on the Academy, I cannot doubt but that the measure will meet with very "general approval among the scientific and professional men of the country." I am, very respectfully,

J. L. CABELL, M.D.,
*President Am. Pub. Health Association.*

UNIVERSITY OF VIRGINIA, February 17, 1879.

## THE TREATMENT OF ACUTE ARTICULAR RHEUMATISM.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In a recent number of your journal Professor Stillé makes the remarkable assertion that "*no* treatment was ever invented that stopped a case of acute articular rheumatism," and that therefore the cure may be abandoned "to nature, aided by palliatives." Had this statement been enunciated thirty years ago, little would have been thought of it; at this day a good deal will not only be thought about it, but probably written on the subject. My attention was early drawn to this painful affection from its prevalence in my own family; and the plan of leaving the cure to nature in a second attack, by the skilful physician who then attended our family, resulted in the death of the patient from endocarditis. Having shortly after the time alluded to engaged in practice myself, I treated another member of my family suffering with an extremely acute attack, and succeeded in decidedly shortening the period of his confinement to bed. The plan then in vogue—now nearly twenty years since—was crude as compared with the facilities we now possess, yet notable success always ensued in all cases *promptly* and *thoroughly* treated. The fact that various methods were urged by different authorities did not at that time militate against their value, for rheumatism, as any other disease, may be relieved or cured by more than one plan of treatment. After seeing a fair amount of rheumatic fever during nine years of army life, I came back to this city, in time to find the second case referred to convalescing from a bad attack which lasted *thirty-seven* days under "expectant" treatment in the hands of a well-known Walnut Street practitioner. The next attack set in with violent symptoms, intense pain in all the articulations of the lower extremities, and in nearly all those of the upper extremities. I saw him twenty-four hours after taking to bed—his temperature $102\frac{6}{10}°$, rapidly mounting to 104° before remedies could be thoroughly applied. There is no necessity for going into the daily symptoms, so much has already been published concerning salicylic acid as to make repetition useless. Suffice it to say that, under twenty-grain doses of salicylate of sodium, in forty-eight hours the temperature was reduced to the normal point, the pain was gone, the inflamed joints were free from swelling, not productive of agony when handled, and the patient—who was anxious to return to his business as soon as possible—was out of the house in seven days. More than that, he has never since then (1875) had a touch of his old enemy. This case is one out of many, and with uniform success in upward of a hundred cases since that time. Much as I respect the opinions of the distinguished Professor, I cannot help differing decidedly and strongly from his statement. The experience of physicians in many thousand cases has proved the value beyond question of the salicylates, and in closing I do not hesitate to say that in the salts mentioned we possess against rheumatism as decided a specific, and more so, than we do in quinia against the so-called malarial fevers.

WM. R. D. BLACKWOOD.
246 N. 20TH STREET, PHILADELPHIA.

## UNGT. VASELINI PLUMBICUM.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—This preparation, referred to on page 168 of the RECORD as highly recommended by Prof. Kaposi, of Vienna, was published by him as new, in the *Wiener medis. Wochenschrift*, No. 17, 1878. In the Transactions of the New York Dermatological Society, of April 11, 1876 (*Archives of Dermatology*, July, 1876), will be found the following: "Dr. Piffard showed some diachylon ointment prepared by melting together equal parts of the emplastrum plumbi and vaseline, working the mass in a hot mortar till cold. The preparation was very soft, and apparently a perfect combination. He had used it successfully in eczema." As this is not the first time that my own and other American work has been deemed worthy of notice in this country only after it has been appropriated, without credit abroad, I trust you will pardon this trespass on your space.

Respectfully yours,
H. G. P.

## DR. BOZEMAN'S REPLY TO DR. SIMS'S LETTER.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In the letter of Dr. J. Marion Sims, published in the RECORD of February 8th, purporting to explain his operations in Vienna for the cure of cancer of the cervix uteri, he asserts that I did not perform any such dangerous operations while I was there, but confined myself to the simpler ones of vesico-vaginal fistula, of which he himself performed only one, and then institutes a comparison of our respective modes in these words:

"The only comparison I heard made in Vienna between my single operation for vesico-vaginal fistula and Dr. B.'s numerous ones was this: that I took only

hours instead of weeks to prepare a contracted vagina for operation; and that I took only thirty minutes to operate on a difficult case of vesico-vaginal fistula instead of three hours; and that the position of the patient for operation and the whole method of operating were in accordance with correct surgical principles, and void of pretension and mysticism."

Now, whether my operation for vesico-vaginal fistula deserves to be characterized by Dr. Sims as full of "pretension and mysticism" or not, I leave to the readers of the RECORD to decide. I must, however, positively protest against any such unwarranted and unprofessional reflection upon my character and reputation, calculated as it is to injure my standing in the profession.

I wish simply to call attention to two points contained in Dr. S.'s letter to the RECORD: first, to the adroitness by which he tries to cover up his failures and humiliation in Vienna, in the face of published and positive proof to the contrary, by saying that only two out of the three cases operated upon there by him for cancer of the cervix uteri died, instead of all three; and, second, to the adroitness by which he tries to make it appear, in the face of published and positive proof to the contrary, that the result of his only operation in Vienna for "contracted vagina" and vesico-vaginal fistula was of far more practical value than my numerous ones, because he required "only hours" to make the necessary preparatory treatment, and "only thirty minutes, instead of three hours" to close the complicating fistula, referring here to the time taken for the same purpose in my Case II., the worst of the four cases that I cured for Professor Brown at four operations.

With regard to the first point, let us read what is said of it by the Vienna correspondent of the *Chicago Medical Journal and Examiner*, September, 1878, who wrote under date July 15th, who was on the spot and who was in daily communication with Professor Salzer, whose service furnished the patient of reputed recovery, from six to eight months after all these cases of cancer were operated upon by Dr. S.: "Dr. Sims's patients operated upon here all died of peritonitis within ten days of the operation. I remarked to the Professor, who related the facts to me, that I supposed they selected desperate cases for Dr. Sims to operate upon. He replied, that although the cases were bad ones, that did not alter the fact that they had died of the direct effects of the operation."

With regard to the second point, it is only necessary to refer to the report by Dr. Ludwig Bandl, of my four cases of contracted vagina with vesico-vaginal fistula operated upon in Vienna, a translation of which from the *Wiener med. Wochenschrift* is to be seen in the *Richmond and Louisville Medical Journal* for November and December, 1877, and especially that of Case II. of mine, singled out by Dr. Sims for comparison with his case. This case, aged thirty-two, presented a vesico-utero-vaginal fistula, measuring five centimetres transversely and four longitudinally, about the size of a silver dollar; and a recto-vaginal fistula the size of a quarter-dollar, 11.5 centimetres from the perinæum. There was a broad, thick, and unyielding cicatricial band that encircled the vagina, and the left angle of the fistula was adherent to the posterior surface of the pubic bone. There was also complete immobility of the uterus. Superadded to all this there was a prolapsus of the superior wall of the bladder through the fistula and vulva to the size of a child's fist, and also abrasions and urinary concretions upon the labia.

On June 26th, my first incisions into the cicatricial bands were made, and the dilatation with cylinders of hard rubber commenced. Four days later the beneficial effects of the treatment were marked, as shown by the mobility of the uterus. The organ could now be hauled down with hooks, so as to place the borders of the fistula in contact about four-fifths of their extent; but the force required to do this, as accurately determined, was 2,800 grammes, nearly six pounds, an amount of resistance which certainly no form of suture could have withstood without cutting out; a repetition of the incisions as required, and gradually increased dilatation, were continued up to the seventeenth day, with the results as here stated by Dr. Bandl.

"July 13th, Bozeman concluded that the proper time for operating had arrived. The patient was secured upon his supporting-chair, chloroform administered, and the urinary fistula exposed to view in a splendid manner by the introduction of speculum No. 1, with the rectal blade. Professors Billroth, G. Braun, Karl von Braun, Spaeth, and many other physicians, were present. The spring-scales showed that now only 120 grammes (about a quarter of a pound) were necessary to approach the upper to the lower edge. . . . .

"July 20th, Bozeman proceeded to remove the wires (button suture), remarking, at the same time, that he would be satisfied if there was union only to the extent of five sutures. To our great surprise, however, the fistula was found almost completely closed; only a small opening remained between the seventh and eighth sutures on the left side, through which a surgeon's probe only could be passed into the bladder."

The plan of treatment and result in this case speak for themselves. The amount of resistance actually overcome in thirteen days from the time the estimate of it was made was just 2,680 grammes. I say thirteen days, because it will be recollected that the force was measured four days after my *first incisions*, the only thing insisted upon by Prof. Simon in his plan of *immediate preparatory treatment*, the course pursued in Vienna by Dr. Sims in his simple case. Here there was determined, by accurate mathematical demonstration, the precise difference between the two systems of *immediate and gradual preparatory treatment* four days after my first incisions. Of course, at the beginning of the treatment the resistance was far greater, perhaps double, triple, or quadruple the estimate given. The one system, therefore, in this case was proven, by exclusion, to be wholly inapplicable, even worthless, and the other was proven to be equal to the fulfilment of the highest aims of skill and science.

Then, of what consequence were these seventeen days, and a complete cure with preservation of her generative functions, to this poor woman, compared with the result of the inefficient system of immediate preparatory treatment, or kolpokleisis, advocated by Dr. Sims in his simple and comparatively uncomplicated case? And where is the proof, other than unwarranted assertion, that the procedure employed in her case, from beginning to end, was not "in accordance with correct surgical principles, and void of pretension and mysticism"?

Scarcely need I say it was this result, achieved under such difficulties, that convinced the surgeons and gynæcologists of Vienna of the great value of my operation, as a whole, for vesico-vaginal fistula, and caused them to estimate my labors in their midst in the complimentary manner as published by the Vienna correspondent of the *Chicago Medical Journal*.

A somewhat similar case to the one above related at such length was recently admitted into my service at the New York State Woman's Hospital, though far less

complicated and difficult to treat. Here also the upper border of the fistula, after the division on both sides of the broad cicatricial band, could only be put in contact with the lower by a force that would have resulted necessarily in the cutting out of my suture apparatus. Gradual dilatation, however, soon overcame the inherent resistance, and brought the parts into a favorable condition for closure of the fistula. The operation was performed in the presence of Drs. Noeggerath, Fitch, Janvrin, Goldthwaite, Tausky, and many other physicians, and the cure thus completed at a single operation.

In conclusion, I would say that I never went to Vienna to operate for the cure of cancer of the cervix uteri. Dr. Sims did this, I suppose, and is entitled to all the credit that attaches thereto. I went there simply to demonstrate the value of my system of *gradual preparatory treatment* as a means of curtailing or rendering unnecessary obliteration of the vagina in a very large class of urinary fistulæ in women.

Yours very truly,

NATHAN BOZEMAN.

206 FIFTH AVE., NEW YORK, Feb. 15, 1879.

## REPLY OF DR. WYETH TO DR. STILLMAN.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The truth settles all questions of priority promptly. After reading your issue of Feb. 22d, I am convinced that my friend, Dr. Chas. F. Stillman, preceded me in the idea of continuous extension. He deserves, and I give him, the credit his genius demands. Up to the time my paper was read before the New York County Medical Society, I had never had the slightest intimation that any other individual had originated or applied the mechanism of continuous extension in this disease. In the discussion which followed, I was informed by Dr. Judson that Dr. Edmund Andrews had some years ago applied an extension apparatus by means of adhesive-plaster strips. I have written to Dr. Andrews, and, when the evidence is all in, the profession shall have the entire truth of it.

The method of continuous extension is now on probation. I am using it, and intend to do so through a few years and give my results. I believe the profession will endorse my claim that I was the first to apply the double plaster jacket with continuous extension, and to demonstrate its usefulness, and that the idea was entirely original.

Yours truly,

JOHN A. WYETH.

Feb. 24, 1879.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 16 to February 22, 1879.*

NOTSON, WM. M., Major and Surgeon. To report in person to the President of the Army Medical Board, now in session in New York City, for temporary duty as a member of the Board. S. O. 38, A. G. O., February 15, 1879.

BIART, V., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort Leavenworth, Kan., to accompany Companies A, C, D, G, and K, 23d Infantry, to their new station (a point on the south side of the North Fork of the Canadian), and remain on duty with them as medical officer of the new post. S. O. 32, Dep't of the Missouri, February 15, 1879.

LA GARDE, L. A., 1st Lieut. and Asst. Surgeon. Granted leave of absence for fifteen days. S. O. 26, Dept. of the East, February 18, 1879.

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending February 22, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| Feb. 15, 1879. | 0 | 3 | 207 | 3 | 3 | 68 | 0 | 0 |
| Feb. 22, 1879. | 0 | 10 | 165 | 1 | 6 | 49 | 0 | 0 |

DR. J. P. CREVELING.—The following were the conclusions given by Dr. Creveling, in his paper read before the New York State Medical Society. They differ from those given in our report, and therefore should be substituted:

1st. That abdominal section for the removal of intestinal obstruction is not only justifiable, but eminently proper.

2d. That in cases of intussusception, as soon as all milder means have failed, the operation should be immediately performed, provided the conditions are at all favorable; but if symptoms of strangulation, as peritonitis, hemorrhage, etc., have occurred, the operation is hardly warranted.

3d. That in obstruction from causes other than intussusception, the operation should be performed at once.

4th. That there is not the real danger in the operation itself that has been by many supposed.

CONVENTION OF AMERICAN MEDICAL COLLEGES.—A call has been issued for a convention of all American Medical Colleges to be held in the city of Atlanta, Ga., beginning at 10 A.M., Friday, May 2, 1879. In general terms the object of the convention is to adopt some "uniform system of instruction more in harmony with the requirements of the age." Although called by the "American Medical College Association," it is entirely distinct from that body. Those colleges which decide to attend the convention by delegates are requested to notify the Secretary, Dr. Leartus Connor, Detroit, Mich., at any time previous to April 25, 1879.

FILARIA IN THE EYE OF A HORSE.—Dr. Jesse Harris, of Greeley, Colo., writes that *two* cases of filaria in the eye of a horse have come within his observation. One of the specimens was sent by him to Dr. Prout, of Brooklyn.

THE YELLOW FEVER FUND.—Fifteen hundred ($1,500) dollars have been sent to Memphis, Tennessee; six hundred ($600) dollars to Grenada, Mississippi; one hundred and fifty ($150) dollars to Nicholasville, Kentucky; three hundred ($300) dollars to Highlands, North Carolina; and eight hundred and sixty-six ($866) dollars remain for distribution. This balance will be sent to the same places unless new objects for consideration are soon made known to the committee. In addition, by the suggestion of the chairman, the Chamber of Commerce of the State of

New York was, perhaps, induced to turn over their final balance of eleven hundred and twenty-seven dollars and twenty-six cents ($1,127.26) for the relief of the families of physicians who died in the employ of the Howard Relief Association in New Orleans.

The committee will soon receive twenty-five hundred ($2,500) dollars from the Chamber of Commerce of this city, and two hundred and fifty ($250) dollars from the Hon. Mr. Evarts, Secretary of State.

The committee desire all the advice about the final distribution of the above-mentioned sum, viz., three thousand six hundred and sixteen dollars ($3,616) which they can obtain from the subscribers and others interested. Sixteen families have received aid, and more will be given to them, as they are all deserving and in want; but the committee are anxious that none should be overlooked until it is too late, and respectfully request information from all reliable sources.

J. C. PETERS, M.D., *Chairman.*

VISITING-PHYSICIAN TO GIRARD COLLEGE, PHILADELPHIA.—The Board of Philadelphia City Trusts, at their meeting on Wednesday evening, February 12th, refused to accept the recommendation of the Committee on Household, *i.e.*, that of Dr. T. B. Reed to fill the position of visiting-physician to Girard College, made vacant by the death of Dr. I. B. Biddle, and elected John J. Reese, M.D., Prof. of Toxicology in the University of Pennsylvania, to the position.

EMMA PLATT VS. THE CONTRIBUTORS TO THE PENNSYLVANIA HOSPITAL, PHILADELPHIA.—An action to recover for damages sustained, it was alleged, by improper food furnished to the plaintiff at the Hospital. The patient claimed, by her lawyer, before Judge Finletter, in Philadelphia, on Wednesday, Feb. 19th, that she was a nurse at the institution in question in 1877, that when she went there she was enjoying excellent health, and was competent to do all the work required of her, but that, in consequence of the food and milk furnished her, which she alleged was adulterated, her health suffered to a great extent, causing her to become dizzy, have cramps, a feeling of nausea, etc., and that, notwithstanding her complaints and protests, the same quality of food was furnished her upon several occasions, in consequence of which her injuries had proved to be of a permanent character, and had incapacitated her from further work of this character and from earning a livelihood. While the plaintiff's counsel, in opening the case to the jury, used the word "adulterated," he would not specify in what the adulteration consisted, but, in the declaration filed, it was charged that the plaintiff's food had been poisoned, and the plaintiff, during her examination, testified, among other things, that tartar emetic had been put in her food, for the purpose of destroying, not her life, but her intellect. The testimony of the woman when put upon the stand was very flimsy, the only show of stability in her case being that the Hospital apothecary had examined some of the food furnished the patient at the time of her employment in the Hospital, and had told the woman that he thought it contained tartar emetic. At the time of the trial, however, this same apothecary stated that he was not at all sure of the accuracy of his tests. The general opinion was that the plaintiff was crazy. At the conclusion of the plaintiff's testimony the presiding judge ordered a non-suit to be entered against her, saying that an institution such as the above mentioned could become responsible only in three ways: 1st, if they compel or order their servants to commit a criminal act; 2d, if they knowingly permit a servant to do such an act; and 3d, if the act of their servants produces injury, that act being the result of carelessness on the part of their servants in the performance of their duty. That the plaintiff's case belonged to the first and second class; the charge being that they themselves did it—did it, of course, by their servants—but through their hand and direction and knowledge; and, secondly, that they knowingly permitted the drug to be administered. That at the conclusion of her testimony there was no evidence that the plaintiff knew that she was being either wilfully or negligently poisoned by any one. That he did not see that a single particle of testimony had been brought forward to justify any of the allegations that the plaintiff had made, and that, of course, there was nothing to sustain her case. While the case was on trial there was a good deal of indignation felt by the friends of the Hospital at the attempt made to drag its management into disrepute.

DINNER OF THE ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS.—The Alumni Dinner will occur at Delmonico's, corner 26th Street and 5th Avenue, on this evening, Saturday, March 1st, at 6.30 o'clock.

DINNER OF THE ALUMNI ASSOCIATION OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.—The eighth annual dinner of the Alumni Association of the Medical Department of the University of the City of New York, took place at Delmonico's on the evening of February 20, 1879. The occasion was a very enjoyable one, and the festivities were continued to a late hour. There were about eighty guests present. Toasts were responded to as follows: "The University of the City of New York," Rev. Charles F. Deems, D.D.; "Our Alumni," Prof. John C. Draper, M.D., Class 1857; "Our Sister Colleges," Prof. Henry B. Sands, M.D., Prof. Wm. M. Polk, M.D.; "Our Public Charities," Hon. Isaac H. Bailey; "The Pulpit," Rev. John Cotton Smith, D.D.; "The Bar," Col. Granville P. Hawes; "The Press," Noah Brooks, Esq.

The following officers were elected for 1879: *For President*—Dr. D. B. St. John Roosa. *For Vice Presidents*—Drs. William A. Hammond, John R. Dickson, S. Fleet Speir, J. J. Peterson, J. W. S. Gouley, W. E. Ford. The *Secretary*, Dr. Fred. R. S. Drake, was elected last year for a term of three years. *For Treasurer*—Dr. C. Dixon Varley. *For Executive Committee*—Drs. Stephen J. Clark, F. Le Roy Satterlee, A. E. MacDonald, Edward L. Pardee, Andrew Otterson, R. A. Witthaus, W. C. Lutkins, L. Goldschmiedt, Newton M. Shaffer, J. H. Hobart Burge, H. B. Conrad, R. A. Murray.

DR. JOHN BYRNE, of Brooklyn, describes and figures his new uterine repositor for inversion of the uterus in the December number of the *New York Medical Journal.*

## BOOKS RECEIVED.

BRYANT'S SURGERY. Second American from Third English Edition. Philadelphia: H. C. Lea.

BILLROTH'S SURGICAL PATHOLOGY. From Eighth German Edition. HACKLEY. New York: Appleton & Co.

YELLOW FEVER. SUMMERS. Nashville, Tenn.: Wheeler Bros.

DISEASES OF WOMEN. Fifth Edition. ATHILL. Philadelphia: Lindsay & Blakiston.

LECTURES ON PHYSIOLOGY. WHITTAKER. Cincinnati, O.: Robert Clark & Co.

HEALTH PRIMERS. New York: Appleton & Co.

# Original Lectures.

## YELLOW FEVER—ITS ORIGIN, PROPAGATION, NATURE, AND MORBID ANATOMY.

A LECTURE DELIVERED BY SPECIAL REQUEST BEFORE THE GRADUATING CLASS OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF PENNSYLVANIA.

By ALFRED STILLÉ, M.D., LL.D.,
PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE.

### Part II.

Gentlemen:—The hypothesis of the origin of yellow fever in specific microscopic germs is a very old one, and the arguments in its favor and against it were summed up by La Roche, in his great work on yellow fever, as long ago as 1855. Ten years later an English writer assumed that the virus of this disease and all "primary zymotic poisons owe their origin to the development of the humbler and more minute, and therefore more subtle forms, of animal and vegetable life." The ground of the claim made by the microscopists whom I have named is that they have demonstrated what before them was only supposed to exist. But admitting the facts which they have brought to light, that the renal and the biliary ducts, and the blood of persons who have died of yellow fever, are filled with the organisms they describe, we shall await with interest the counter-proof that similar organisms are not found in malarial fever and other so-called "zymotic" diseases. Until then we cannot admit that they have demonstrated that any such condition as they describe is peculiar to yellow fever. To adduce the presence of these organisms in the biliary ducts as a cause of the jaundice in this disease is to overlook the capital fact that in yellow fever, so far from their being an accumulation of bile in that organ, it is singularly pale through the absence of blood from its vessels and of bile from its ducts, and that the characteristic jaundice of the disease is due to suppression of the secretion of bile, and not to its retention in the liver. In regard to the accumulation of fungoid spores in the tubules of the kidneys as a cause of the alleged "diminution or suppression of urine" which is said to be "such a common and fatal symptom of the disease," it must be remarked that this statement is not borne out by clinical observation, nor is it consistent with what we know of the effects of suppression of urine in other diseases. Renal obstruction occasions convulsion or deep stupor, a totally different condition from that which characterizes the ordinary mode of death from yellow fever. It is often a state of conscious resignation or of apathetic indifference, or of a cheerful, delirious revery; and even when the coma is profound it is not so uninterruptedly, but often alternates with delirium. These are not the phenomena of uræmia. While it is very certain that suppression of urine is generally a fatal sign, it is equally so that death in this disease constantly occurs independently of any such symptom, and while the urine is freely secreted. In certain epidemics a majority of fatal cases present this symptom, but in others it is not the uniform nor even the usual precursor of death. It follows, therefore, that neither uræmic symptoms nor suppression of urine, nor the assumed cause of their production, can be accepted as a sufficient explanation of the phenomena of the disease. It should not be lost sight of that obstruction of the kidneys as a cause of suppression of the urine and of uræmic symptoms in this disease is a generally accepted pathological fact; but pathologists have hitherto recognized as a cause of the obstruction an infarction of the renal tubules, with desquamated epithelium, which they did not discern hypothetically, but demonstrated with the microscope.

#### YELLOW FEVER NON-CONTAGIOUS BUT INFECTIOUS.

Having thus sketched an outline of our knowledge of the origin, diffusion, and essential cause of yellow fever, there remains to be noticed the question of its contagiousness, *i. e.*, its propagation by something generated in and emanating from the body of the sick, and conveyed to the well by direct contact or indirect communication with them through any medium whatever. These are the essential conditions of contagion as we see it illustrated in the dissemination of small-pox, measles, scarlet fever, typhus and typhoid fevers. Yellow fever is not propagated in this manner. In a circular issued by the Surgeon-General of the U. S. Marine Hospital Service, in September last, it is stated that "yellow fever patients have been treated in the marine hospitals at St. Louis, Cairo, Louisville, and Cincinnati without communicating the disease, the simple precaution having been taken to disinfect the clothing and other effects immediately on receiving the patients. It is a well-known fact that the unacclimated attendants upon the yellow fever patients at the New York Quarantine do not contract the disease." And the Surgeon-General is justified in adding that "yellow fever is transported by *things*, and not by persons considered apart from their clothing." A similar judgment has been pronounced by all physicians residing in our yellow fever cities, whose professional rank entitles their judgment to the greatest weight. The late Dr. Nott, who spent nearly all of his professional life in Mobile, and whose competency in such a question no one will doubt, states his judgment thus: "Yellow fever is not generated in the human system, *nor transmitted from one person to another in any way;* its germ or poison is generated outside of the human system, and is taken into the system after the manner of the marsh malaria poison. But, unlike the latter, its germ is portable, and may be carried from one point to another, and thus propagated." And again he says: "Few of the old and experienced physicians of the yellow fever zone believe in the contagiousness of the disease, and their convictions are based upon facts coming under their observation. During thirty years' residence in Mobile my experience corresponded with theirs." The late Dr. Warren Stone, of New Orleans, who probably had more experience of yellow fever than any man who ever lived, stated emphatically the exact truth when he declared, "I am perfectly convinced, beyond all doubt or hesitation, that, personally, it is not contagious. I *know* that it is not." In this city, at various times during nearly a century, local epidemics of yellow fever have occurred from time to time, every one of which was distinctly traceable to vessels from infected ports. Many of the patients were received into our ordinary hospitals, and perhaps not always with due care to leave behind their infected clothing; and yet in no single instance has the disease attacked their attendants or the surrounding hospital patients. Similar illustrations without number might be cited to prove the absolute incommunicability of the disease from the sick to the well. It would be very instructive to contrast with these facts innumerable

others in which yellow fever was introduced into healthy ports by vessels on board of which not a single person had at any time during the voyage suffered from the disease, showing that, although not contagious, its cause is highly infectious.

This distinction is not a deduction from scientific principles, nor is it a convenient hypothesis; it is a plain lesson taught by plain facts, which, however, it required a modicum of common sense to interpret, seeing how difficult it is to distinguish between the agency of a ship and its crew, and between people and their clothing. But the truth has been made plain by the results of quarantine already adverted to. When the ship and its cargo, its crew and its passengers, have been purified of the perilous stuff they brought with them from yellow fever ports, they have become harmless in our docks and our houses.

These plain and well-established lessons were unheeded in the summer of 1878 at the port of New Orleans. Infected persons and goods found their way into the city, and in due time the germs which they introduced multiplied and spread the disease throughout the city. The panic-stricken people sought refuge in flight, and they, with their infected goods, spread the infection along the line of their exodus, eastward and northward to the Ohio River, and beyond it, until nearly 15,000 persons were sacrificed to the incompetency or connivance of those officials whose duty it was to protect the country against the entrance of the destroyer. And yet in all this desolation we do not learn that anything has occurred to prove the personal contagiousness of yellow fever. As a single illustration of the mode in which it spread, I may cite the case of Grenada, Miss., a town of 2,500 inhabitants, of whom 1,040 were attacked with the fever, and 326, or more than 30 per cent., died. The fever first broke out in a family of which the mother had been to the railroad depôt to see her daughter off to a neighboring town. The train was from New Orleans, where the fever was then raging, and the mother, it is thought, occupied a seat in the railroad car alongside of her daughter for about twenty minutes, while the New Orleans passengers were taking breakfast.

### THE RAPIDITY OF THE DIFFUSION OF THE YELLOW FEVER POISON.

In the history of the late epidemic, as of many previous ones, there is much to illustrate the rapidity and extent of diffusion of the yellow fever poison. These qualities seemed to lend a strong probability to the zymotic hypothesis of the disease, for they seem to resemble those of fermentations as it occurs in certain liquids and in bread dough. "A little leaven leaveneth the whole lump," and a single infected bale of goods or garment may infect a whole city. The disease was introduced into New Orleans as early as May 23, 1878, and before July 12th, thirty or forty deaths from it had occurred, the reports of which were at the time suppressed. It broke out in the form of a series of groups of cases, each being connected with some other by personal association or by exposure in the same locality, and from these separate foci the conflagration spread over the whole city. Thence it was carried "in the clothing or about the persons of people going from the infected districts. In other instances, it was conveyed in such fomites as cotton bagging, or goods of some description, or bedding and blankets" (Dr. Bemiss's Report).

### A LOW TEMPERATURE FATAL TO THE PROGRESS OF THE DISEASE.

Finally, as a high temperature is necessary to develop the disease from its germs, so a low temperature suspends or destroys their activity and arrests the progress of yellow fever epidemics. You must have noticed that, on the first occurrence of frost, the spread of the recent epidemic abruptly ceased, first upon the northern limits of the area within which it had prevailed, and rapidly thereafter at points more and more southwardly, until at last it ceased in New Orleans. But experience has shown that in this way it is not always absolutely killed, that its activity may be only suspended, and that where it has prevailed in the autumn it will perhaps reappear the following year at the same season, if the weather favors its revival. In that case it usually assumes a milder type, and may even reappear once more with lessened virulence the succeeding year, or until it fades entirely away. Again, a transient period of cold weather does not always put an end to an epidemic of yellow fever; if the temperature rises again, the disease may break out anew. But it should be remembered that, even in our southern seaboard cities, the subsidence of an epidemic is not always delayed until frost: and in Cuba, where frost is unknown, yellow fever subsides, like other epidemics elsewhere, for want of food to feed on, since all who are susceptible of having the disease have already paid their tribute to it.

### THE PATHOLOGY OF YELLOW FEVER.

Having thus sketched the conditions under which yellow fever arises and prevails, we might proceed to consider the symptoms which characterize it. To render them intelligible, however, we should first learn what alterations of function and structure the disease occasions in the organs that inhibit its distinctive symptoms. I shall attempt nothing further on the present occasion. The symptoms point directly to the blood, the stomach, and the kidneys as organs which are most deranged in their structure, and so, in point of fact, they are. When venesection was practised in the treatment of yellow fever, it was observed that the coagulability of the blood was diminished in proportion to the gravity of the attack, and that the serum was yellowish or reddish yellow. It has shown more recently that its natural alkalinity has been replaced by acidity; that it generally contains a notable proportion of urea, especially in the advanced stages of the disease and after death; indeed, according to one observer, "it is seventy times more abundant in the yellow fever blood than in normal, healthy blood" (Jones). According to the same author, Dr. Joseph Jones, cases attended with suppression of urine are "characterized chiefly by great diminution of the fibrin, which, in some cases, he found to be not one-hundredth of the usual amount; and by the abnormal amounts of urea and ammonia, and other sulphates, phosphates, and extractive matters." He was unable, "even after the most diligent search with the highest magnifying powers, to discover in the fresh blood of yellow fever patients any living animalculæ, or vegetable cells, or sporules, or pigment-granules." The latter statement should be weighed against that of Drs. Richardson and White, who detected an obstruction of the kidneys by fungoid spores. As to the microscopical appearances of the blood itself, there is no doubt that a large proportion of the red corpuscles is found to be loosely scattered, instead of forming rouleaux, and that many are also disintegrated, the degree of

these changes varying with the malignity of the disease.

THE CAUSE OF BLACK VOMIT.

Identical, but more complete changes are found in the blood that constitutes the black vomit. It is not always black at first. It is due to two causes: the liquefaction or disorganization of the blood, and the inflamed and softened condition of the gastro-mucous membrane. Vomiting in this disease is at first bloodless, and is due to inflammation of the stomach. As the liver secretes but little bile, the rejected fluid is watery and mucous, and has at first an alkaline reaction. But later it becomes acid, and is shown, by appropriate tests, to contain muriatic acid. Its acidity is so great that it creates an acrid, burning sensation in the throat and stomach, and continues to do so even after basins of it have been vomited. When allowed to settle, the vomit separates into two portions, of which the lower is grumous and almost black, and the upper is as clear as pure water. On microscopical examination this deposit is found to consist of loose and disintegrated red-blood cells. "No animalculæ are discoverable in either fresh or putrescent black vomit; but, as it decomposes, certain fungi are disclosed, which are most frequently, if not always, developed outside of the body during fermentation" (Dr. M. Michel). Urea is said to have been found in the contents of the stomach. The condition of the stomach is inflammatory, with a greater or less tendency to softening of its mucous coat. Sometimes it is of a deep brown color from the blood accumulated in its veins, and altered by the acid contents of the organ. When the black vomit has been copious, the vessels of the stomach are empty, and the mucous membrane pale. Specks or spots formed by ecchymoses or effused blood are often observed. The organ usually contains more or less of the "black vomit," varying in quantity from three or four ounces to a pint. It deserves notice that the inflammation of the stomach is pretty equally diffused throughout its mucous coat, and that there is no evidence that its glandular apparatus is specially involved. In this respect the condition of the organ contrasts remarkably with its state in remittent fever, in which disease the mucous glands of the organ at its pyloric end are greatly enlarged.

THE YELLOW FEVER LIVER.

Not less dissimilar is the liver in yellow fever from that which occurs in remittent fever. In the latter the organ is enlarged, distended with blood and with bile, and presents a characteristic dark bronze color; but in yellow fever the organ is pale, and appears to be devoid of even its normal proportions of bile and blood. This peculiar appearance was first described by Louis, in his account of the epidemic at Gibraltar in 1828, as "being sometimes of the color of fresh butter, sometimes of a straw color, sometimes of the color of coffee and milk, sometimes of a yellowish-green, mustard, or orange color." The change may probably be ascribed to a drainage of the blood of the liver into the stomach; it is in nowise a fatty degeneration, for in that condition the cohesion of the liver is softened, whereas in this it is increased or unaffected. To whatever cause it may be due, it is certainly peculiar to yellow fever. The gall-bladder is usually empty, or contains only a little viscid bile. These facts harmonize with the presence of an excessive quantity of biliary coloring matter in the blood, the urine, the skin and other tissues.

The kidneys do not present in their general aspect any characteristic appearances. Like the other tissues, they are yellow, but they are neither enlarged nor softened. On microscopic examination they present only the ordinary lesions of desquamative nephritis in their tubular portions; that is to say, the tubules are distended with epithelium, and more or less with albuminous casts. But this infarction of the organs is sufficient to account, in part at least, for the albuminous quality of the urine in the disease, and for the presence of so large a proportion of urea in the blood.

No other lesions found after death in this disease appear to be related to its symptoms. In the cerebro-spinal centres no alteration is observed except, perhaps, nervous engorgement. The spleen is not enlarged, nor is it softened out of proportion to the other tissues. Half a century ago Louis described the heart as being flabby with diminished cohesion of its muscular tissue. Riddell and others long ago laid much stress upon the quite constant molecular degeneration, and quite recently Dr. Joseph Jones claims to have determined, both by chemical analysis and microscopical examination, that the heart undergoes acute fatty degeneration in yellow fever. However this may be, it is very certain that during life no symptoms point to any special debility of the heart, such as would be occasioned by such a lesion. Indeed, "it has been known to preserve an apparently normal state, even coincidently with other portentous symptoms, and the pulsation of the heart may continue some time after all the respiratory movements have ceased." This clinical fact is of greater weight in establishing the essential integrity of the heart-muscle in this disease than are any number of microscopical observations that go to demonstrate the degeneration of its tissue in proving the organ to be functionally incapable.

In conclusion, gentlemen, I have endeavored to impress upon you the following propositions:

1. That yellow fever originates nowhere but in the West Indies.
2. That its morbid poison is conveyed elsewhere in ships and fomites.
3. That, wherever conveyed, a high temperature is essential to its propagation.
4. That a strict quarantine is always efficient in preventing its dissemination.
5. That it is not contagious.
6. That its essential cause cannot be isolated or defined, but must be assumed to be a specific poison.
7. That this poison in the system acts primarily in two ways, by disintegrating the blood and inflaming the stomach; and that, secondarily, it tends to impair the eliminating function of the kidneys.

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A NOVEL METHOD OF SMUGGLING.—The tricks of the smuggler are certainly curious. A wagoner stopped, a short time ago, before the custom-house of Neuville-aux-Jontes, a town in the north of France, and asked for a permit to enter the town. When the wagon was inspected, the bodies of two dead horses, far advanced in putrefaction and emitting a horrible odor, were found in it. The very strangeness of the load excited suspicion, and a closer examination revealed the fact that the intestines of the animals had been removed and replaced by tobacco. The quantity seized weighed 385 pounds. The smokers of that town have reason to congratulate themselves on their escape.

# Original Communications.

## THE TREATMENT OF HEMORRHAGE IN ABORTION.

By W. T. LUSK, M.D.,

PROFESSOR OF OBSTETRICS, AND DISEASES OF WOMEN AND CHILDREN IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

[Read before the Medical Society of the State of New York, February 5, 1879.]

I AM well aware that the subject I have selected possesses none of the charms of novelty. The ordinary necessities of practice make it one in which each individual member of this Society has had a large and varied experience. Nevertheless, the question involved in the title of this paper is never raised for discussion among professional men without bringing into strong relief the divergent opinions regarding the best methods of procedure. The directions contained in text-books are for the most part vague and unsatisfactory. Thus it comes to pass that the young practitioner, who finds himself for the first time brought face to face with a hemorrhage associated with abortion, is not a little embarrassed when he asks himself whether in the special case he is simply to use the vaginal douche, or whether he shall tampon, or whether he shall at once proceed to extraction of the ovum. Nor is this feeling of perplexity confined to the tyro alone. Hardly a month goes by that some poor exsanguined creature is not sent half moribund to my uterine ward in the Bellevue Hospital, a victim of indecision and halting practice on the part oftentimes of the senior members of our craft.

With faulty management, death from abortion is by no means an infrequent occurrence. The deaths from this cause, reported between the years 1867 to 1875 inclusive, to the Bureau of Vital Statistics in New York, were one hundred and ninety-seven, a number which falls in all probability considerably short of the truth by reason of the many circumstances which precisely in this condition tempt to concealment. The total number of deaths during the same period from metria were, according to the reports rendered, 1,947. Hegar reckoned one abortion to every 8 to 10 full-time deliveries,* a proportion, if correct, which would seem to show a mortality from abortion hardly second to that of puerperal fever itself. In addition to fatal cases, the large amount of uterine disease traceable to bad management at the time of abortion contributes still further to the grave responsibility which rests upon the physician.

And yet, excluding cases of criminal malpractice, and wilful neglect on the part of the patient, an abortion, unless it occurs as a complication to otherwise dangerous diseases, ought to be free from peril. I have made the exceptions advisedly. M. Tardieu found that in 116 cases of criminal abortion of which he was able to ascertain the termination, 60 died.† A few years ago a lady laughingly told me that she had made the trip from Paris to Havre, on her way to this country, the day following the occurrence of an abortion, in spite of the protestations and entreaties of her physician. Since then she has died of peritonitis consequent upon a similar act of imprudence.

In hospital practice where patients are under direct control, deaths rarely if ever occur. Dr. Johnston reports that during his seven years' mastership of the Rotunda Hospital, there were 234 cases of abortion. One of these died, but it was from mitral disease of the heart. In the history books of the Bellevue Hospital I find a similar clean record. That like favorable results have been obtained in other hospitals, and by many physicians in private practice, I do not doubt. Indeed, it is astonishing how large a proportion of cases do well under rest in bed, and careful nursing without the intervention of the physician. A lady belonging to my clientèle, aborted at the fourth month during the past summer, while at the sea-side. The physician of the place called daily, but never once came near the bedside of the patient. She lost a great deal of blood, but as she happened to be a strong woman, and as the entire ovum was expelled, she made a rapid recovery.

Now it seems to me such cases are calculated to mislead and to encourage a *laissez faire* practice in every way to be deprecated. As I look over the records of Bellevue Hospital I find a number of patients treated a few years ago with rest, ergot, and the vaginal douche. They all recovered, it is true, but many with long histories of repeated hemorrhages, fetid discharges, and local inflammations. They were doubtless discharged finally with subinvolution of the uterus, and uterine and cervical catarrh; to add to the already overgrown contingent of helpless broken-down women who seek relief in our public dispensaries. I have nothing but words of praise and honor for those who have contributed so much in the past ten years to perfect the practice of gynecology. I regret, however, that the flattering interest their labors have excited, have tended to weaken the interest in the sister department of obstetrics. While our young men seem all desirous to make a specialty of the diseases of women, it is hard to obtain a hearing for the statement of the very trite fact that it is faulty midwifery which gives to gynecology nearly all its importance.

During the past five years I have left very few cases of abortion to the unaided efforts of nature. I not only never have had occasion to regret intelligent interference, but contrasting my later cases with those in which the Fabian policy was adopted, the favorable results are such as to impel me to missionary efforts in behalf of bold and prompt procedure. I do not propose to take up the time of the Society with the relation of illustrative cases. I should only repeat what has been frequently paralleled in the experience of others. I shall simply endeavor to formulate the rules of practice, which, in the varied contingencies presented to us, have seemed to me satisfactory.

As it is practically desirable to make some distinction between interruptions of pregnancy taking place in the earlier and later months previous to the time when the child becomes viable, I shall use the term abortion to designate the discharge of the ovum in the first three months, and apply the expression "immature delivery" to the completion of labor from the fourth to seventh month inclusive.

### THE TREATMENT OF INEVITABLE ABORTION.

In the first two months little treatment besides rest in bed for a few days is ordinarily required. In the exceptional cases the treatment does not differ from that in the hemorrhages of the non-pregnant uterus.* In the third month we distinguished:

I. Cases in which the ovum is thrown off entire.

* Hegar, Beiträge zur Pathologie des Eies. Monat Schrift, für Geb.-Kunde. Bd. XXI., Supplement-Heft, S. 35.

† Vide T. Gallard, De l'Avortement au point de vue Medico-légal, p. 45.

* In the discussion following the reading of this paper Dr. Barker drew my attention to the occasional severity of hemorrhages in the first two months of pregnancy.

II. Cases in which the sac ruptures, and the embryo escapes with the discharged fluid.

1st. When in the third month the ovum is thrown off without rupture of the fœtal membranes, the hemorrhage rarely assumes dangerous proportions. The uterine contractions press the ovum into the cervix, which dilates and, in primiparæ, becomes somewhat elongated. As the ovum descends, the body of the partially emptied uterus retracts. The effused blood coagulates in thin layers between the ovum and the uterine walls. The ovum forms a tampon which fills the cervix and restrains the hemorrhage.

No active treatment is therefore demanded. A vaginal douche, consisting of a pint of tepid water, may be used twice a day as a measure of cleanliness. All attempts to disengage the ovum with the finger should be avoided, as endangering its integrity. The vaginal tampon is unnecessary. It should only be used as a safeguard, where patients live at a distance from medical assistance, and can only be visited at long intervals. As it is never certain that the rupture of the ovum may not take place during the course of its expulsion the tampon may in such cases be employed in anticipation of a possible increase of hemorrhage from sudden collapse of the membranes. In multiparæ the ovum seldom remains long in the cervix. In primiparæ, on the other hand, the tardy dilatation of the os externum may lead to a retention of the ovum in the cervix lasting for days. As this condition is extremely painful, it is allowable to dilate the os externum with the index finger, or even by incisions through the ring of circular fibres which furnish the cause of delay.

Small portions of the decidua vera sometimes remain after abortion attached to the uterine walls. They commonly do no harm, but are discharged later with the lochial secretion.

2. When the sac ruptures, and the *liquor amnii* escapes, the removal of the pressure exerted upon the uterine wall by the intact ovum is followed by profuse hemorrhage from the utero-placental vessels.

The diagnosis of rupture may be made either from finding the embryo in the clots, or in the case of a dilated cervical canal by the direct examination of the uterine cavity. Although after rupture portions of the ovum may still be felt, we miss the smooth surface of the fluctuating amniotic sac. When the embryo cannot be found, and the cervix is closed, profuse hemorrhage alone would render the occurrence of rupture extremely probable.

The principles of treatment in these cases are very simple. The indications are to check the hemorrhage, and to empty the uterus. As to the best methods of attaining these results opinions widely differ.

When cases are treated with rest in bed, the internal administration of ergot, and cold cloths applied to the abdomen and vulva, the loss of blood is usually considerable, but the most of them terminate favorably. In some, however, the hemorrhage may prove so severe as even to threaten life. Now, it is in every way desirable, for the future welfare of the patients, to restrain the hemorrhage within the narrowest limits. The most effectual means of arresting the hemorrhage, is to clean out the uterus. If, therefore, the physician finds at the time of his visit the cervix sufficiently dilated to allow him to introduce his finger into the uterus, he should not hesitate at once to remove the retained portions of ovum. The operation does not require any considerable amount of technical skill, while the immediate results are in the highest degree satisfactory. The patient should be placed cross-wise in bed, with the hips drawn well over the edge. The legs should be flexed, and the thighs held, where assistants can be obtained, at right angles to the body, to secure the greatest degree of relaxation to the perineum and abdominal walls. The right index finger should be then passed into the vagina and through the cervical canal, while the left hand placed upon the abdomen gradually presses the uterus down into the pelvic cavity, so as to bring it within reach of the examining finger.* This portion of the act should be performed slowly, while every effort is made to divert the attention of the patient. Hasty manipulations invariably excite, in the most willing of patients, the full resistance of the abdominal walls. When the point of the finger reaches the os internum it is sometimes necessary to pause for a minute or two, to await a sufficient degree of dilatation to allow the finger to pass beyond the insertion of the nail. When the right finger is used, it should be made to pass upward with its dorsal surface along the left side of the uterus to the opening of the Fallopian tube, thence across the fundus to the right side. As the tip of the finger passes down upon the right side it presses the detached ovum before it toward the os internum. By the time the finger has thus made the circuit of the uterus, the ovum is pressed into the cervical canal, and thence passes easily into the vagina. With the left finger the movement is exactly the reverse. The finger passes first with its dorsal surface directed to the right side, from the right Fallopian tube across the fundus, and downward along the left side of the uterus. The only resistance the finger meets is at the placental insertion, where a certain amount of manipulation is required to complete the detachment.†

When the uterus cannot be pressed down within reach of the index finger by force exerted above the symphysis pubis, it is permissible to introduce the hand into the vagina; but, in such a case the fingers are apt to become cramped, and all freedom of manipulation to be destroyed. A better means of overcoming the difficulty consists in the administration of an anæsthetic. In cases of extreme anæmia, chloroform should be discarded as too dangerous. Ether, however, has often seemed to me, on the contrary, to possess a stimulating action, and its use to be followed by increase in the volume and force of the pulse. The relaxation produced by the anæsthetic makes it easy to depress the uterus down to the pelvic floor, where it can be reached with comparative ease.

After the removal of the ovum, the cavity of the uterus should be washed out with a stream of tepid carbolized water, in order to bring away any small detached portions of the ovum.

In the manual extraction of the ovum, deliberation and perseverance are the main elements of success.

If, when the patient is first seen by the physician, the cervix is not sufficiently dilated to allow the finger to pass without force, the vaginal tampon should be employed.

The tampon restrains the hemorrhage, stimulates the uterus to contraction, and allows time for the employment of measures to rally a patient exhausted by profuse losses of blood. The material of which a

* Prof. A. R. Simpson (Trans. Edin. Obst. Soc., Vol. IV., page 227) recommends drawing down the uterus by means of volsellum forceps attached to the anterior lip of the cervix. I have once seen extreme hemorrhage follow this manœuvre (seventh month of pregnancy), and now feel some hesitation about its employment, at least in the later months.

† *Vide* HÜTER: *Compendium der Geb. Hülflichen Operationen*, S. 22.

tampon is made is a matter of indifference, provided only it fills the vagina to its utmost capacity. In cases of urgent need, a soft towel, handkerchiefs, strips of cotton cloths, dampened cotton, wool and tne like, may be seized upon to meet a temporary emergency. The time-honored sponge, on account of its porosity, is least deserving of favor. When, however, the physician proposes to leave his patient for a number of hours, the mere hasty filling of the vagina through the vulva will not suffice. On the contrary, the highest degree of safety can only be secured by the closest observance of the rules of art.

The first essential of a good tampon is, that it be carefully packed around the cervix uteri, and fill out the more dilatable upper portion of the vagina. This can be accomplished only by the aid of a speculum. The method I usually employ is one, the credit of which, so far as the general features are concerned, I believe belongs to Dr. Marion Sims. It consists in soaking cotton-wool in carbolized water, and then, after pressing out any excess of fluid, in forming from the carbolized cotton a number of flattened disks about the size of the trade dollar. The patient is then placed in the latero-prone position, and the perineum retracted by a Sims' speculum. The dampened cotton disks are introduced by dressing-forceps, and under the guidance of the eye are packed first around the vaginal portion, then over the os, and thence the vagina is filled in from above downward, until the narrow portion above the vestibule is reached. No other plan of tampon with which I am acquainted can compare in solidity and effectiveness with this. Its removal is accomplished by the detachment with two fingers of a portion at a time. This part of the procedure is moderately painful. Many methods have been suggested to overcome, in the removal, the necessity of introducing the fingers into the vagina. A very ingenious one consists in attaching the cotton to a piece of twine, so as to form a kite-tail, which can be withdrawn by simply making tractions upon the extremity of the string left hanging outside the vulva. Prof. I. E. Taylor uses a roller bandage. It is efficient, and, like the kite-tail described, can be easily removed.

Before the introduction of the tampon the vagina should be thoroughly washed out. No tampon should be allowed to remain in the vagina much over twelve hours. Immediately after withdrawing the tampon, before proceeding to the examination of the uterus, the vagina should be cleansed by an injection of tepid carbolized water (gr. xxx. ad Oj.). Often, after the removal of the tampon, the ovum is found in the upper portion of the vagina, or filling up the cervix. If this is not the case, and the cervix is not dilated, so that manual extraction may easily be performed, the tampon should be reintroduced.

It is customary from the outset to sustain the action of the tampon by the administration of ergot, either in the form of the fluid extract (thirty drops every three to four hours), or of a solution of ergotine given hypodermically. (Ergotine, gr. xij., glycerine, ʒ i., ten minims twice in the twenty-four hours.) In women with abundant adipose tissue, the injection should be made into the subcutaneous tissues of the lower abdomen. In others, the outer surface of the thigh should be selected.

If the patient is collapsed from loss of blood, after tamponing, opiates, tea, and alcoholic stimulants should be administered; the latter in small, but frequently repeated quantities, until the cerebral anæmia is relieved, and the capillary circulation restored.

If after its removal the cervix is found not to be dilated, the tampon may be reintroduced and left *in situ* for another period of twelve hours. The employment of the tampon is not, however, to be recommended for a period much exceeding twenty-four hours. Its continued use is apt to irritate the vagina. In spite of carbolic acid it acquires an offensive odor. It generates septic matters which, in the long run, creep upward through the cervix into the uterine cavity, and produce decomposition of the ovum. I prefer, therefore, in cases of undilated cervix, after twenty-four hours of vaginal tamponing, to resort to sponge-tents. The tent should be long enough to pass well up through the os internum. After six to twelve hours the tent should be removed, and, after a preliminary vaginal douche, manual extraction be proceeded with in accordance with the rules already given.

In manual delivery it is desirable to remove the decidua as well as the ovum. When the cervix is patent this is easy, as the decidua is then detached from the uterine walls. When the cervix is unchanged the detachment is usually incomplete. In such cases it is advisable, therefore, to try first the tampon before the sponge-tent, as the former stimulates the uterus to contract, and promotes the separation of the decidua, even when it fails to secure the discharge of the ovum.

Inside the uterine cavity ovum-forceps should be used with great caution. I have discarded them altogether. In the first place they are dangerous. In the second place they are unnecessary. When, however, the retained portions of ovum have left for the most part the uterine cavity, and occupy the cervical canal, the delivery may at times be advantageously hastened by placing the patient upon her side, and, with the cervix well brought into view by a Sims' speculum, applying the ovum-forceps, under the guidance of the eye, within the cervix to the sides of the placenta (Skene). But great care requires to be exercised not to break away the fragile structures, and leave material portions behind.

Under like circumstances Hoening* recommended a modification of Crede's method for expression of the placenta. With the patient lying upon the back, the operator, according to Hoening, should seek to compress the body of the uterus between the left hand, laid above the symphysis pubis, and two fingers of the right hand, introduced into the vagina. The measure is only practicable when the ovum has, to a great extent, passed from the uterine cavity. As it is somewhat painful, and requires, for success, lax abdominal parietes, it possesses a limited range of applicability.

*Treatment of Neglected Abortion.*—When, following abortion, the uterus has once been completely evacuated, hemorrhage ceases. A slight lochial discharge persists for a few days during the period in which the uterine portion of the decidua vera completes its period of repair. If, therefore, a patient comes to us two to three weeks after the supposed conclusion of an abortion, with the story of recurrent hemorrhages taking place in the rule whenever she leaves her bed and assumes the upright position, it may be assumed, with an approach to certainty, that portions of the ovum still remain within the uterus. Oftentimes a fetid discharge points to the fact that decomposition has been set up. The absorption of septic materials may furthermore become the source of chills, of fever, and of great uterine tenderness. In most cases, with rest in bed, the contents are discharged by suppuration.

* HOENING, *Scanzoni's Beitrage*, Bd. vii., S. 213.

and recovery ultimately takes place, but only after a slow protracted convalescence, during which pelvic cellulitis and pelvic peritonitis occur as not uncommon complications. Hemorrhage, peritonitis, and septicæmia may, however, bring the case to a fatal issue. The removal of the retained placenta and membranes is therefore indicated not only as a measure calculated to promote recovery, but to avert possible danger to life.

With regard to the operation for removal, the rules already given are applicable. The following peculiarities should, however, be borne in mind. In case the retained portions are undecomposed the cervix is usually found closed, and requires preliminary dilatation with the sponge-tent. When decomposition has once set in, the os internum will, in the rule, allow the finger to pass into the uterus.* When a decomposed ovum is removed by the finger, a chill and a septic fever, which rapidly exhausts itself, however, is apt to follow in the course of a few hours. This chill and fever result from the slight traumatic injuries inflicted by the finger upon the uterine walls, whereby the capillaries and lymphatics become opened up to the action of the septic poisons. The fever ends in a short time because the reservoir of supply is removed with the *débris* of the ovum. If the uterine cavity, after the operation, is carefully washed out with carbolized water, the septic fever is often averted. The beneficial results following the complete emptying of the uterus in these cases are so decided, that of late years I have not allowed myself to be deterred from proceeding actively, even when perimetritis and parametritis in not too acute a form already existed. In practice, multitudes of examples show that the products of inflammation situated in the pelvis, do not absorb so long as putrid materials are generated in the uterine cavity.

The removal of a fibrinous polypus, owing to its smoothness and the small size of the pedicle, is often a Sisyphus task. The separation can only be successfully accomplished when the palmar surface of the index finger presses from above upon the point of attachment. This necessitates a choice of hands. Thus, when the polypus is situated to the right, the right index finger should be employed; and the left index finger when the polypus is situated to the right. After the detachment is complete it is necessary to press the polypoid body firmly against the uterine walls and proceed with its withdrawal slowly. If, as sometimes happens, the polypus slips from under the finger, it is necessary to pass the finger again to the fundus of the uterus, and repeat the attempt. Small portions, not larger than a pea, can be washed out by the uterine douche. When the polypus is attached near the os internum, the latter will be found patulous, but, when it is well up in the body of the uterus, dilatation with sponge-tents is a frequent prerequisite to removal.

A good deal of testimony has been offered of late, by Skene, Spiegelberg, Mundé, Boeters, and others, in favor of the use of the curette for the removal of retained portions of ovum. To whom, exactly, the honor of this method belongs it is difficult to say. Accidentally, I read in a record book of Bellevue Hospital, a few days ago, an account of the operation performed by Dr. Fordyce Barker in 1870. With the curette the dangers from dilating the os and manipulating the uterine cavity are avoided. For myself, however, I confess I never feel quite safe until my index finger has made the complete tour of the uterine cavity. Still, the method has its advantages in cases where the removal of bodies retained within the uterus is complicated by the existence of extensive peri- and parametritis.

*The Treatment of Immature Deliveries* (fourth to seventh month).—Distinctive of immature deliveries are: painful periodic uterine contractions, which can be recognized by the hand applied above the symphysis pubis; rupture of the membranes, and discharge of the fœtus; the complete formation of the placenta and umbilical cord; while in abortion the uterine contractions are obscure, the placenta rudimentary, and the ovum is frequently expelled entire. In the treatment of immature delivery the tampon may usually be discarded. After rupture of the membranes and expulsion of the fœtus, the hemorrhage should be controlled by grasping the fundus of the uterus in the hand through the abdomen and compressing the uterine walls firmly together.

The passage of the fœtus opens the uterus so as to allow, in the fourth and fifth month, the introduction of two fingers; in the sixth and seventh month, that of the half-hand. In case compression of the uterus does not arrest the hemorrhage and expel the placenta, the cord should be carefully followed to its insertion, to determine the side upon which the implantation exists. If the placenta is implanted upon the right side, two or four fingers of the right hand, according to the degree of cervical dilatation, should be passed up along the left side of the uterus, across the fundus to the placental site. The detachment should be effected with the tips of the fingers, and the placenta pressed downward as the fingers descend along the right side of the uterus. The left hand should be employed, in the reverse direction, when the placenta is situated to the right.

In conclusion, the following summary of the views which have been expressed is respectfully offered:

1. In the first two months an abortion needs no special treatment. The hemorrhages of early date are amenable to the same principles of treatment as those from the non-pregnant uterus.

2. In the third month no treatment is required when the ovum is expelled with intact membranes.

When the membranes rupture previous to expulsion, and hemorrhage takes place, immediate removal should be attempted, provided the cervix be sufficiently dilated to admit the index-finger. When the cervix is closed, the tampon should be tried for twenty-four hours. If the tampon proves ineffective, the cervix should then be dilated with a sponge-tent, and the ovum removed with the finger. The finger should pass up along the side of the uterus, across the fundus, and complete the circuit of the uterine cavity.

3. In cases of neglected abortion, retained portions should be removed by the finger or the curette. When the ovum is decomposed, no dilatation of the os is usually necessary. When the ovum is fresh, the preliminary use of sponge-tents is usually demanded if manual delivery is resorted to.

4. Fibrinous polypi, when situated near the os internum—a rare occurrence, indeed—arrest the involution of the lower portion of the uterus. The os is therefore open in the rule, and permits the passage of the finger. When the polypus is attached to the fundus, the cervix is usually closed. Small, smooth, slippery bodies, like fibrinous polypi, are rarely to be detached, unless the finger operates from above, so that the choice of hands depends on the side to which the polypus is attached.

* Hüter: *Compendium der Geb. Operationen.* Leipzic, 1874, S. 32. To this excellent work I acknowledge my indebtedness for many hints and suggestions of extreme practical value.

5. In immature deliveries hemorrhage can usually be controlled without the tampon, by compression of the uterus, and, in cases of delay, by the manual extraction of the placenta.

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# Reports of Hospitals.

## CHARITY HOSPITAL.

SERVICE OF DR. F. N. OTIS.

### PROBABLE SYPHILITIC INFECTION WITHOUT THE CHARACTERISTIC INDURATION ABOUT THE INITIAL LESION.

THE patient gave the following history: About five weeks previous he had connection (for the first time in a number of months). This was followed by a slight abrasion on the penis, of which he took very little notice. Two weeks afterwards he again had connection, and a few days later the present sore made its appearance, and the glands in the groin became enlarged. Upon examination there was found upon the under surface of the penis, near the frenum, a sore somewhat circular in outline and considerably more than half an inch in diameter. This had recently been cauterized by the house-surgeon, and was now covered by a crust. It was stated, however, that the sore presented very much the same appearance before cauterization, its surface being well scabbed over. Dr. Otis remarked that if this had been a chancroid there would probably have been a considerable destruction of tissue, while here there was little, if any such loss; although the activity of the inflammatory process in chancroid varied greatly in different cases, and was sometimes of a very low grade. On the other hand, there was nothing whatever of the characteristic induration ordinarily associated with a true syphilitic sore, usually occurring in from ten days to three weeks after exposure. Still it would not do to judge from this fact that the presenting lesion here was not a syphilitic one. Although there was no induration, the glands of the left groin were found to be enlarged, insensitive, indurated—in other words, typical of syphilitic infection. This is the condition which Ricord has called "the venereal period." No gland enlargements were discovered at other points, and no trace of any eruptive trouble was present.

The chief points of interest about the case were the early affection of the glands of connection, and the difficulty of explaining this glandular induration without, apparently, any induration being previously associated with the initial lesion. Dr. Otis accounted for both these points on the supposition that in this particular instance, owing to certain peculiar circumstances, the syphilitic virus had reached the lymphatic system of the patient in an unusually short space of time. It was thought that the implication of the glands of connection would take place in a longer or shorter period in any given case, according as the distance from the initial sore to the underlying lymphatic vessels of the part was greater or less. It had been proved by anatomists that the lymphatics approach very near the surface in the vicinity of the *frenum preputii*, being just underneath the epithelium, and the occurrence of the sore in this situation here would satisfactorily explain the promptness of the enlargement of the inguinal glands, as well as the absence of induration about the initial lesion. The reason why the latter had not become indurated was because, on account of its position, there had not been sufficient time for an accumulation of cells at this point before the lymphatic vessels of the part had been reached by the syphilitic infection. Ordinarily this took place in from two to three weeks, and Ricord used to say that, if a sore had not become indurated within three weeks after exposure, it would never become so. This was certainly true as a general rule, although in very rare instances induration had been known to occur after a longer period than this. One case was on record in which it was said to have occurred seventy days after exposure.

In support of the above idea Dr. Otis mentioned the case of a very noted southern surgeon who, while performing some operation upon a syphilitic patient, received a slight puncture in the end of his finger by a spicula of bone. Within twenty-four hours there was a line of swelling and slight redness extending up the arm. The glands of the axilla at once became enlarged and indurated. Then followed a well-marked general roseolous eruption, and the other ordinary manifestations of secondary syphilis; and still later tertiary symptoms appeared. At no time was there any induration about the initial lesion upon the finger, and the only reasonable explanation of the whole course of the phenomena in this instructive case was that the syphilitic virus had been introduced at once into the lymphatic system, without any preliminary interval, as is ordinarily the case. It would be interesting to watch the future of the present patient in order to see whether or not a correct view of its true character had been taken.

### PHIMOSIS FROM PROBABLE CHANCRE.

The patient had had connection seven weeks before, and this was followed by a sore which he said looked like a simple raw and moist surface. Five weeks later, while he was drinking very hard, phimosis came on, and had continued up to the present. When admitted to the hospital, four days previous, the penis was greatly swollen and the redness of the surface extended almost to the pubes. The organ was now much reduced in size, and the redness was confined to the region near the glans; but there was still a considerable purulent discharge. The house-surgeon had been making applications of a solution of nitrate of silver, and, in consequence of the marked improvement that had taken place, had refrained from cutting.

Dr. Otis remarked that phimosis might depend upon either chancre, chancroid, gonorrhœa, or balanitis (inflammation of semi-mucous membrane covering the glans penis). On examination it was found that the inguinal glands on one side were enlarged and indurated, and although their condition was not so characteristic of syphilis as those in the preceding patient, it was sufficiently marked to render it, in connection

with the history of the sore, probable that the man had an infecting sore upon his penis. No eruption or glandular enlargements in the cervical or epitrochlear regions, however, could as yet be detected.

In all cases where chancroid was present or suspected, it was best to avoid a cutting operation if possible, on account of the danger of the raw surfaces becoming inoculated with the chancroidal virus; and in view of the improvement that had already taken place, Dr. Otis thought it was not necessary to operate here: at least not unless some more urgent symptoms should arise. As to the treatment, he believed that it should be very simple. The patient should have perfect rest in bed, and all sources of irritation be kept away from the affected parts. Locally the two indications were simply to keep the latter perfectly clean and to apply some efficient local stimulant and disinfectant. For this purpose carbolic acid, of not greater strength than forty drops to the ounce, would probably be preferable.

OBSCURE TERTIARY SYPHILIS.

This was the case of a young girl, to whom Dr. Otis's attention was called about three weeks previously. At that time patient lay with her knees drawn up, and intolerant of the slightest pressure over the left side of the abdomen, or even touch of the fingers; some febrile excitement; pain was complained of as most severe over a space of three inches square to the left of the umbilicus. Examination under ether revealed a tumor about the size of the closed fist, solid, fixed, and irregular, over the course of the common iliac artery. Auscultation gave no abnormal sounds, no thrill or other evidence of aneurismal trouble, which was at first suggested by the location of the tumor in relation to the iliac and mesenteric arteries. After a few days a small, soft tumor was discovered over the spine at the junction of the lumbar with the dorsal vertebræ; this was about two inches in diameter, elevated about half an inch, slightly tender, obscurely fluctuating, and at first thought to be connected with the deeper parts. A careful examination proved it to be superficial and movable. There was no clear history of syphilis, but an account of local venereal sores several years previously; and the patient was then suffering from chancroid of the vulva. She was at once put upon iodide of potassium, with small doses of the biniodide of mercury. The iodide was gradually increased to 3 j. three times daily, well diluted. This was well borne, and under its use the pain subsided; the tumor in the iliac region was free from tenderness, and had decreased fully one-third in size, and that over the spine was one-half less in size, painless and boggy. Dr. Otis then remarked that not unfrequently in cases of obscure tumors, where there was no reliable evidence of antecedent syphilis, the touchstone of treatment cleared up the diagnosis in a prompt and satisfactory manner, as in the present instance, where the suspicious tumors were thus proven to be syphilitic gummata. In addition to the local effects of the specific treatment, the general health of the patient had also improved in a marked degree.

HYDROA FROM IODIDE OF POTASSIUM.

In a female patient, who had been suffering from syphilitic rupia and other constitutional trouble, and had been taking iodide of potassium freely for their relief, there had suddenly broken out upon the face, arms, and other parts of the body, the remarkable pustular eruption known as hydroa, which in occasional rare instances becomes developed during a prolonged course of this remedy. On first appearance the pustules were more or less circular in outline (some of them being umbilicated); while some bore considerable resemblance to the blebs of pemphigus. As soon as the eruption was discovered, the iodide of potassium had been suspended altogether, and cod-liver oil and iron substituted for it; and the patient at once began to improve. At the time she was seen the pustules had dried, and the eruption presented merely the appearance of thick crusts scattered over the surface that had been affected.

Dr. Otis stated, in connection with this case, that during the course of syphilis, and especially in the later stages of the disease, cachectic conditions were sometimes developed under the persevering use of specific remedies, and apparently as a consequence of their action; it was then advisable to drop them altogether, at least for a time, and to administer such agents as cod-liver oil and iron in their place. It was not unfrequently the case that these seemed to have a beneficial effect not only upon the general condition, but also upon the syphilitic troubles; when, however, the specific developments advanced, it became necessary to return to the former remedies. In the present case, Dr. Otis said, he would not hesitate to resume the iodide of potassium if any aggravation of syphilitic manifestations should be noted; because, if it gave rise to any difficulty, the trouble could be easily controlled, as had been done in this instance. Thus far, however (a week from the cessation of the iodide of potassium and the mercurial fumigations which she was taking), the patient had not only improved in general health, but extensive superficial ulcerations of the limbs had quite healed.

DOUBLE SYPHILITIC IRITIS.

In the female venereal ward there was also a patient suffering from double iritis, in connection with a very bright and well-marked syphilitic roseola, associated with a characteristic enlargement of the post-cervical glands. In regard to the diagnosis here, Dr. Otis remarked that when in any case we found painless enlargement and induration of the inguinal glands following a suspicious sore about the genitals, the probabilities were that the patient was affected with syphilis, and that when a little later there followed a roseolous or papular eruption, accompanied by enlargement and induration of the post-cervical and other distant glands, there was no reasonable room for doubt about the matter; but that when, in addition to the above signs, there developed an iritis, the diagnosis was absolutely certain.

He considered it of great importance to recognize the presence of iritis as early as possible, so as to prevent the formation of inflammatory adhesions. When these had occurred, the fact was indicated by the irregular outline of the pupil, due to a certain amount of fixation of the iris on account of their presence. The recognized way to prevent such adhesions, as well as to break them up when recent, was to dilate the pupil fully by means of atropia, and keep it in this dilated condition until the inflammation was subdued. When these adhesions had become very firm, atropia was of no use for this purpose, and the only method of securing the patient's vision in the future was by the performance of iridectomy.

This case was an exception to ordinary syphilitic iritis, from the fact that it was double instead of single, and there was also a degree of photophobia, as well as of conjunctivitis, which is not always present. The action of mercury was of especial value in such cases, not only aiding in a solution of the adhesions, as

well as in their prevention, but in allaying the characteristic supra-orbital pain, which, like that of all syphilitic neuroses, was chiefly nocturnal.

ABNORMALLY CONTRACTED MEATUS URINARIUS, WITH PROBABLE STRICTURE OF THE URETHRA MORE DEEPLY SEATED.

The patient was a man in whom there were some evidences of constitutional syphilis, who complained of great pain over the bladder and in other parts of the pelvis (as well as in different portions of the body, though less marked), of frequent micturition, and of occasional difficulty in passing his water. The centre of the penis measured slightly more than three and three-quarters inches in circumference, and, according to the proportional standard adopted by Dr. Otis, the meatus should have admitted a No. 36 or 37 sound (French scale). Instead of this, however, it was found to be quite contracted in calibre.

In order to make an exploration of the canal, Dr. Otis introduced a urethrometer as far as the bladder, and gradually turned the scale until it marked 40, when the bulb gave the patient the sensation of just filling the urethra. The instrument was then gently withdrawn without meeting with any obstruction until the bulb came within four inches of the meatus, when it was caught. Dr. Otis remarked that just at this point, where the bend in the penis takes place in its flaccid condition, there is a natural contraction of the canal of greater or less degree, due to the folds of the mucous membrane gathered there. He therefore diminished the size of the bulb to the extent of three or four millimetres, but finding that it still could not pass, he pronounced the condition pathological; and it was not till it had been brought down to 33 that it could be gotten through the constriction. At the meatus it became necessary to reduce the instrument to 24 before it could be withdrawn.

With a probe-pointed bistoury he then slit up the orifice and the canal for about an inch beyond it until a No. 38 sound could be passed through it with ease; and stated that it was quite possible that when the wound had healed up (as he had frequently seen in other cases), it would be found that the apparent stricture beyond had been more or less spasmodic, and was due to reflex irritation caused by the constriction at the meatus. Even if it should be ascertained that there was a purely organic stricture, he would not advise that any measures should be adopted for its relief at present, for he deemed it prudent to avoid all such operations, if possible, in persons still suffering from syphilis.

With regard to the contraction of the meatus which had been present in this case, Dr. Otis remarked that the ordinary symptoms found in certain cases to be dependent on this condition were more or less constant pain in the pelvis, and extending down the thighs, frequent micturition, a sense of sudden restriction occasionally during urination, dribbling after passing water, and certain reflex nervous symptoms in various parts of the body, which varied in different individuals. Quite recently, he said, he had been consulted by a physician of this city, who for years had suffered great pain after defecation. His rectum had been examined, with a negative result, by competent surgeons, and finally, as a last resort, the sphincter ani had been ruptured in the hope of giving him relief, but still the trouble continued the same as before. Dr. Otis, on making an examination, found that the orifice of the urethral canal was abnormally contracted, and advised its enlargement; this was accomplished, and the result had been so extremely satisfactory that the gentleman now considered himself practically cured.

ABNORMAL CONTRACTION OF THE ORIFICE OF THE URETHRA WITHOUT SYMPTOMS.

Dr. Otis called attention to this case in order to contrast it with the preceding. Not only was the meatus unusually small naturally, but the patient, who was now suffering from constitutional syphilis, had formerly had a sore just at this point, which had still more markedly diminished its calibre. Yet, strange to say, the man suffered no inconvenience whatever, as far as could be made out, from having an orifice which could almost, without exaggeration, be called a "pin-hole meatus." It was one of those exceptions, Dr. Otis remarked, to which all general rules are subject; but, at the same time, he did not doubt that if the patient's life was spared, the condition would almost certainly give him more or less trouble in the future.

## Progress of Medical Science.

CAFFEIN AS A DIURETIC AND CARDIAC STIMULANT.—Some time ago Prof. Gubler stated that caffein induced abundant and instantaneous diuresis in cases of cardiac dropsy. Dr. L. Shapter has recently reported cases which confirm this observation, and indicate a stimulating action of the drug upon the heart. In these cases the patients were in the latter stages of heart disease, with dropsy, dyspnœa, weak and irregular heart action, and diminished renal excretion. Caffein, in gr. iii. doses from one to three times a day, was given, after digitalis and potash had been tried unsuccessfully. All of the four reported cases showed rapid and marked improvement, the urine generally doubling in amount within twenty-four hours.

Caffein has been shown to be a vascular and cardiac tonic. Whether in these weak and dilated hearts it acts as a direct stimulant or chiefly by increasing diuresis and thus unloading the circulation it is impossible to say, but at any rate, its special value seems to be pretty well shown.—*The Practitioner*, Jan., 1879.

ANOTHER ANÆSTHETIC.—The Committee of the British Medical Association on the Action of Anæsthetics reports the results of six experiments with dichloride of ethidene, and is of the opinion that it presents all the advantages of ether or chloroform without their disadvantages. Its odor is agreeable, it produces rapid narcosis without much previous excitement, and its use is rarely followed by nausea or vomiting. It is administered by pouring the liquid on a piece of lint placed in a tumbler and this held over the mouth and nose. In from eight to twelve minutes complete anæsthesia and muscular relaxation are produced. During the anæsthesia respiration goes on regularly, the pulse is full and slow, and there is no pallor or blueness of countenance. From half an ounce to an ounce of the substance is used.—*Brit. Med. Journal*, Jan. 25, 1879.

IODIDES OF QUINIA AND CINCHONIDIA.—Dr. John Vansant, of the Marine Hospital Service, has discovered a method of obtaining the above iodides, and considers them very effective preparations. To a solution of equal weights of sulphate of cinchonidia and citric acid a like weight of potassium iodide is added. A yellow precipitate is formed, and this

being washed in ice-cold water, the protiodide of cinchonidia is left. It is a yellow crystalline powder, soluble in alcohol and hot water; it is odorless, but intensely bitter to the taste. Chlorine water added to a watery solution of this protiodide precipitates the biniodide of cinchona. This is a brownish-red powder, soluble in alcohol, and having a disagreeable metallic taste. When quinia is substituted for cinchonidia in these processes similar reactions occur, and the resulting compounds have nearly the same characters.

In regard to the therapeutic value of these substances, Dr. Vansant cannot speak positively of the biniodides, but he gives strong testimony in favor of the protiodides which he has used in a great many cases with the best results. They are indicated in conditions where both quinia and iodide of potassium are needed. In malarial fevers they are more prompt and efficient than twice the weight of any other preparation of the cinchona alkaloids. The watery solution can be combined with many other medicines without decomposition. The prescription which Dr. Vansant uses and recommends is as follows:

℞. Cinchonidiæ sulph.,
Potassii iodidi,
Acid. citric..... ää gr. xxiii.
Aquæ destillat..... ℥ vss.

Dissolve the cinchonidia and acid in the water, then add the pot. iodid., and agitate.

Sig.: Dose, ℥ ss. t. or q. i. d.—*American Practitioner*, January, 1879.

Case of Polypus of the Œsophagus Successfully Removed.—Mr. Annandale reports a case of œsophageal polypus which he removed from a patient aged seventy-six years, and which he considers worthy of record, as cases of polypus growing in this situation are rare. The tumor had been growing for five years, and used to "come out of his throat on to his tongue" upon coughing, after which it would return to the œsophagus spontaneously, or it could be easily reduced with the finger. It never gave any inconvenience except by its protrusion, there being no interference with swallowing or respiration. At the time of the operation the tumor measured four inches in length by one inch and a half in width, gradually tapering towards its peduncle, which was fully two inches long, and about the size of a lead-pencil. The attachment was to the left side of the œsophageal tube, immediately below its commencement. The peduncle was surrounded by the chain of an écraseur, and slowly divided about one inch from its origin, thus removing about five inches of tumor. The structure of the growth was fibrous, resembling in appearance that of the dense fibrous polypus which grows in connection with the nasal cavities and the base of the skull. It was covered externally by mucous membrane. For some hours after the operation there was slight oozing of blood from the stump, but this soon ceased. The patient was able to return home in a fortnight.—*The British Medical Journal*, November 23, 1878.

Surface Thermometry. — Surface thermometry is as yet in its infancy, but it is already of service in the diagnosis of disease, the prognosis, and in the treatment. The investigations of Dr. Squire demonstrate that the surface temperature of the chest is not always raised in the neighborhood of tubercular deposits, but when recent active disease exists such elevation is always present. Less recent disease, while undergoing active change, still shows an increase both of surface temperature over the site of the morbid process, and of the axilla on the affected side. This local temperature subsides when local or general improvement is manifest, and is often entirely absent from an old deposit, now quiescent or not producing general disturbance. A useful means is thus afforded for recognizing the progress of the disease. With pleurisy and recent pleuritic adhesions the surface temperature is raised more than when these complications are absent. Acute pleurisy may raise the local temperature 4° or even 5° Fahr.; the affected side is always a full degree higher than the unaffected. Neurosal affections, so far as traced by the surface thermometer, seem to be attended by a lowering of temperature at the seat of a referred pain, or of a reflected irritation, and by an increase of heat on that of the originating centre.—*The Practitioner*, November, 1878.

Contagiousness of Phthisis.—An attempt has been made by Dr. Tappeiner, of Meran, to induce tuberculosis in dogs, by causing them to inhale phthisical sputa. The animals were confined for several hours daily in a chamber, the atmosphere of which held in suspension the sputum of a case of phthisis distributed by means of a steam atomizer. Of the eleven cases experimented upon, all, with one doubtful exception, presented at the autopsies, after a period varying from twenty-five to forty-five days, well-developed miliary tubercles in both lungs; and in most cases tubercles were present to a smaller extent in the kidneys, and in some cases also, in the liver and spleen. The quantity of sputum necessary for the effect is certainly a very small one, for in three experiments, only one gramme was daily atomized in the air of the chamber. Miliary tubercles were also found at Munich, in the lungs of two dogs fed for six weeks with fifteen grammes daily of the same sputum as that used in the inhalation experiments; in six similar experiments at Meran the results were negative, all the organs being normal. It is remarkable that, with two exceptions, the animals, up to the time at which they were killed and found diseased, were well and lively, and indicated their disease neither by emaciation nor by other external symptoms. A preliminary account of these experiments of Tappeiner led Dr. Max Schottelius to make some similar experiments, not only with the sputum of phthisical individuals, but also with that of persons suffering from simple bronchitis, and with cheese, brain, and cinnabar. The result was that miliary tubercles were found in the lungs in all cases, and in equal quantity with both phthisical and bronchitic sputum. Cheese produced a smaller quantity; pulverized brain still less; and the cinnabar the least effect of all, merely a few whitish tubercles with pigmented centres, with an interstitial deposit of the substance, which had caused no inflammatory reaction. Tappeiner has also experimented with calves' brain in two cases, but with purely negative results. No changes in the lung followed, such as resulted from the inhalation of tuberculous sputum.—*The Lancet*, Nov. 23, 1878.

On the Use of Thymol.—Dr. Seyferth has published the results of his experience with thymol, which he has latterly employed exclusively in all surgical cases, and also in other cases requiring local antisepsis. In several cases of extensive burns it acted very satisfactorily, stopping at once the offensive discharge in cases that had been treated for days with carron oil, relieving the pain entirely, and producing a rapid recovery. The deep sloughs separated more rapidly than usual, and the granulations were not so exuber-

ant as in cases treated by carbolic acid; the resulting cicatrices also were not so deep and firm. A violent stomatitis due to the inhalation of caustic vapor, which had been treated for two days without relief by potassium chlorate and solutions of boracic acid, was quickly cured by a solution of thymol, of the strength of 1:3000. The same solution proved very effective in seven cases of diphtheria, three of which were very severe, and accompanied by great fetor of breath. Here it was used by injection into the nose, as well as into the mouth. Purulent coryza and suppurative aural catarrh do well under the thymol treatment; solutions of 1:4000 are well borne, and do not irritate either the nose or the auditory canal. Two cases of ophthalmia neonatorum were cured by the thymol solution, with which the eyes were washed out every hour; between the washings the eyes were kept constantly covered, at first with ice-compresses, and later with compresses of cotton soaked in the thymol solution. In some puerperal cases with offensive lochia, the vagina was washed out repeatedly, at first with solutions of 1:1000, and later with solutions 1:2000 and 1:4000; the results were rapid deodorization and a favorable action in the general condition of the patients. In two cases of old vaginitis with profuse, stinking discharge, a cure was obtained in fourteen days by irrigations with a solution of 1:4000, repeated three times a day, and followed by the introduction into the vagina of plugs of cotton dipped in thymolized glycerine. Dr. Seyferth keeps the following solution constantly on hand, and dilutes it to the desired degree whenever it is needed: Thymol, 1.0; spir. vini, 10.0; glycerin., 20.0; aquæ destil., 70.0. M.—*Allg. Med. Cent. Zeit.*, No. 62, 1878.

PERFORATION OF THE APPENDIX VERMIFORMIS AS THE RESULT OF A TUBERCULAR ULCER.—In October, 1876, a woman, 25 years of age, was admitted into the Vienna General Hospital with a history of amenorrhœa for four months, and occasional pains in the abdomen for six weeks. Examination of the lungs, heart, liver, and spleen revealed nothing abnormal. The abdomen was moderately distended, and presented a transverse tumor below the navel, which was displaced upward. The skin over the tumor was red and injected. The tumor itself was soft, compressible, and contained air. It could be made smaller by pressure, and the anterior abdominal wall could then be felt at the bottom of it; an opening with infiltrated edges could be made out by palpation in this wall. The hypogastric region was firm and resistant, especially on the right side. The tumor was slightly enlarged by coughing. The percussion note over it was high-pitched and tympanitic. In December the tumor opened externally, and an artificial anus formed. The patient died of exhaustion in April, 1877. The autopsy revealed tuberculosis of the lungs, and peritonitis with adhesions of the intestines. In the fossa iliaca there was a large abscess which inclosed the vermiform process that had been perforated by a tubercular ulcer. A fistulous canal led upward and inward from the abscess to the abdominal opening.—*Bericht der k. k. Krankenanstalt in Wien*, 1877.

OSSEOUS TUMOR OF THE MAMMA.—At a recent meeting of the *Société de Biologie*, in Paris, M. Leloir presented an osseous tumor of the mamma, that had been removed from a slut in the laboratory of M. Vulpian. There was partial ossification of the fibrous tissue of the gland. According to M. Malassez, tumors of this nature are not rare in dogs.—*Le Progrès Médical*, December 7th.

A NEW MODIFICATION OF THE ANTERIOR SPLINT.—Dr. Roswell Park has made a modification of Nathan R. Smith's "Anterior Splint," which he claims to be an improvement both on it and on Hodgen's modification. The principal novelty in the splint as modified is the addition of an arrangement permitting movement of the knee-joint without interference with the position of the fragments, in cases of fracture of the femur. Dr. Park states, however, that it would hardly be justifiable to make any changes in the position of the limb until after the formation of callus. Another new feature in the splint is the introduction of an arrangement by which elastic extension can be made. The modified splint can be taken apart and packed in small compass, and is so arranged that it can be fitted to a leg of any size. It is applicable to almost all fractures between the hip and ankle, except those of the patella.—*Transactions of the Illinois State Medical Society* for 1878.

TREATMENT OF POPLITEAL ANEURISM BY ESMARCH'S BANDAGE.—Mr. Jonathan Hutchinson, at a meeting of the London Clinical Society, *Lancet*, *Dec.* 21, 1878, read the notes of two cases of popliteal aneurism treated as above. One was in a gentleman twenty-six years of age. An Esmarch bandage was applied, while the patient was under ether, to the entire limb, tightly below the knee, very lightly over the tumor, and tightly again on the thigh. The elastic strap was applied as tightly as possible in the upper third of the thigh, and after a little time the bandage was removed. Ether was kept up for an hour, and at that time the strap was removed and a horse-shoe tourniquet substituted. No pulsation ever returned in the tumor. The subsequent recovery was rapid and complete. The second case was less speedily successful. It was treated exactly as the first case, but pulsation returned. Three days later the same plan was adopted. The man was kept under ether for two hours; at the end of that time the strap was removed, and digital pressure was kept up for seven hours, at the end of which time pulsation had quite ceased.

CONTROL OF HÆMORRHAGE IN AMPUTATION AT THE HIP-JOINT.—Mr. Alfred Pearce-Gould, in amputating at the hip-joint, at Westminster Hospital, Dec. 7th, adopted the following plan of Mr. R. Davy's to control the hæmorrhage, and so completely that only about three ounces of blood were lost. The common iliac artery was compressed by carefully introducing a straight wooden rod, with a bulbous end, into the rectum for about nine inches. The length of the rod was about twenty-two inches. Slight elevation or depression of the handle, when once the instrument was brought to bear on the vessel, was enough to stop, or to allow the flow of blood.—*Lancet*, Dec. 21, 1878.

MILK A SOLVENT OF QUININE.—Mr. Batterbury calls the attention of physicians to the fact that milk is a good solvent for quinine, and also covers its bitterness. He has found that one grain of sulphate of quinine, dissolved in one ounce of milk, gives a solution with scarcely perceptible bitterness. Five grains can be administered in two ounces of milk without imparting to it a very disagreeable taste, and when the same quantity is added to a glass of milk all bitterness disappears. Mr. Palmer, of Birmingham, has confirmed these observations. He recommends, however, that the quinine should first be dissolved in glycerine in the proportion of a grain to a drachm.—*Gazette Obstétricale.*

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, March 8, 1879.


## THE OVER-CROWDED PROFESSION.

THE three medical colleges of this city have just graduated over four hundred and fifty doctors of medicine. It is fair to presume that other schools throughout the country have contributed a proportionate number of recruits to the army medical. To the ordinary practitioner, not interested in the pecuniary success of any of these institutions, this increase of young doctors will be looked upon with considerable concern as to what the end may be. It is so universally admitted that the profession in this country is overcrowded, that it would seem like a work of supererogation to refer to the fact in the way of argument against large graduating classes. Still it is not only natural, but it is opportune at this time, to refresh our memories in regard to some points which refer to the present yearly system of glutting the market with medical talent.

The number of medical students in a series of years may be taken as a fair exponent of the number of the profession itself. The number of medical students in 1810 was 600; in 1871, 7,046; in 1876, 3,689; and in 1877, 9,646. And we find that the proportion of these to the population was in 1810, 1 to 12,000; in 1840, 1 to 6,800; in 1871, 1 to 5,700; and in 1877, 1 to 4,700.*

These figures show very plainly a steady increase of students every year which is out of all proportion to the increase of population. The same may be said for the profession, the members of which, by the continually increasing yearly additions, have swelled the proportion of one to six hundred of the population.

It is noticeable that the professions of law and theology, though both overcrowded, do not show of late years this same steady increase of students. The number of theological students in 1871 was 3,204, while in 1877 it had only increased to 3,965. In 1871 there were 1,722 law students in the law colleges; in 1873, 2,174; and in 1877, 2,811. While the increase in medical students amounts to nearly a thousand every year, that of the other professions has averaged within a hundred.

The medical colleges have not been behindhand in ministering to this much diffused aspiration to enter the noblest of professions. There were in 1877 eighty-two of these chartered institutions. These are distributed somewhat curiously throughout the States. Thus there are three at Washington, D. C., a city of 140,000 inhabitants; there are two in Massachusetts; ten in Ohio; all New England has six; all Missouri seven; Pennsylvania has four; Illinois and Kentucky each five. As a general thing it may be said that where there are few colleges in a State they supply a demand; where there are many, they demand a supply —and get it by superior inducements in the line of economy to the student of time and money.

Prof. Alfred Mercer, in an interesting address recently made to the council of the Syracuse (N. Y.) University, very pertinently says:

"From the cheapness of American diplomas, and from the few unenforced legal restrictions on the practice of medicine, with or without a diploma, or any known qualifications whatever, we have one doctor to every six hundred inhabitants, while a few miles from here, just over the Canadian border, they have only one to 1,200 inhabitants, while in Great Britain there is but one to 1,672.

| | | | |
|---|---|---|---|
| France has one to | | ..... | 1,814 |
| Germany " | " | ..... | 3,000 |
| Belgium " | " | ..... | 2,048 |
| Austria " | " | ..... | 2,500 |
| Italy " | " | ..... | 3,500 |
| Norway " | " | ..... | 3,480 |

Thus, we have two doctors in the United States to one in Canada, nearly three to one in Great Britain, more than four to one in France, and five to one in Germany. The just relative proportion of doctors to population has been variously estimated at from fifteen to twenty-five hundred. The present average of the civilized world would probably fall within these limits."

We do not care to enlarge much upon the indications furnished by these statistics. The continual forcing of a larger and larger number of youths into a profession which they can never ornament and are likely to disgrace, is an evil that has been often enough discussed. Competition is very beneficial; over-competition begets envy, poverty, and dishonesty. When the proportion of physician to population is one to four hundred, medical ethics will probably cease to exist. The proportion as already stated as one to six hundred.

It is expected that they who proclaim evils will furnish remedies, and several such have been suggested. The endowment of the colleges so as to render them independent of the student's fees is a plan that is strongly recommended. But this project has violent opponents; besides, it would not alone be effec-

* Repor t of the Commissioner of Education for 1877.

tive, and it is at present impracticable. It certainly is a misfortune that medical colleges are now the poorest of all institutions of learning, and are compelled to obtain their incomes from the fees of their students. Hence, large classes mean pecuniary success, each year the number of graduates is increased, and each year the profession gets poorer. It is the State which can and ought to remedy the evil. Let it do here what is done in other countries take from the colleges their indiscriminate licensing power and bestow it on a board who shall admit to medical practice only those whose thorough education proves them worthy of it. By some measure of this kind we may be able to avoid that condition to which statistics now point, where every man will be his own doctor.

### THE PLAGUE.

Although reports concerning the progress of the plague in Europe are quite contradictory, there does not seem to be a doubt that the epidemic is of considerable magnitude, and that it has spread from the localities in which it has been said to have originated. From Astrakhan it has extended to the adjacent villages on the left bank of the Volga, and has made its appearance at Saratoff and neighboring localities. The different governments of Europe have united for self-protection, and representative medical and sanitary commissions have been delegated to study the disease. As a result of these investigations, numerous data have been presented which are extremely interesting, both from a historical and scientific point of view. Our foreign contemporaries vie with each other in the amount of information upon these topics which they furnish to their readers.

The general characters of the present epidemic are in keeping with those which have been heretofore associated with the disease. The period of incubation is exceedingly short. In fact, the rapidity with which the majority of the victims are stricken is one of the appalling features of the disease. The duration of the disease, the average being three days, is also in keeping with the history of other visitations. Although this is the same form of bubonic plague which was observed in the beginning of our century in some parts of the East Indies, the glandular complication does not appear to be as prominent a condition as does the pulmonary affection, which is a rapid and destructive gangrenous pneumonia. The real cause of the disease is believed by Prof. Hirsch to be a blood-poison, which produces not only very serious typhoid symptoms, but induces local affections of the glandular system, in the shape of buboes, axillary and cervical enlargements, as well as destructive inflammation of retro-peritoneal glands and the spleen. The follicles of the intestines are never affected as in typhoid fever. Prof. Hirsch is of the opinion that the disease does not belong to the contagious group, but is of a zymotic type. In regard to the latter point, his views coincide with the leading Russian authorities.

We are informed that a strict quarantine is maintained along the whole line of the Volga, that the province of Astrakhan is completely surrounded with troops, that infected villages have been burned, and that the most stringent measures are employed to limit the epidemic. In view of the extraordinary means adopted, and the privations to which the inhabitants of the infected districts are subjected, the end is not yet. There is, perhaps, nothing which is so liable to be overdone as a quarantine based upon the fears of an ignorant people. It so often defeats itself that practically it does more harm than good. Russia appears to be adopting the extremest measures, with a result which it is not difficult to anticipate. We know that quarantine to be effective must be reasonable, and that some middle ground must be taken between the means of preventing the extension of the disease on the one hand and the protection of the people exposed to the disease on the other. That the latter condition is not appreciated by the Russian government as it should be is quite evident. The *cordon sanitaire* is complete in its way, but this of itself will serve to explain why the people subjected to the same are demoralized, deprived of many of the necessaries of life, and are subjected to the usual unsanitary conditions which obtain under such circumstances.

### THE ALTERATION OF PRESCRIPTIONS.

The correspondent who favors us with a communication concerning the alteration of prescriptions by druggists is very unfortunate in his relations and surroundings. The facts which he presents show an amount of turpitude on the part of his pharmacist which is certainly alarming. We do not suppose that such experiences are by any means unique. In fact, we have in mind many instances that have come to our knowledge in which either the substitution of drugs has been made, or the quantities altered, at the discretion of the compounder. Of course this has been done by unprincipled and irresponsible druggists, and the physician who discovers the wrong is very quick to advise his patients to go to some trustworthy dispenser. Our correspondent has a similar method of remedying the evil. If, however, there is but one pharmacy in his village, he must dispense his own medicines.

A Searcher for Urinary Calculi.—Dr. Edmund Andrews (Professor of Surgery in the Chicago Medical College) has devised a "searcher" for urinary calculi, which consists of a combination of Toynbee's otoscope and an ordinary short-curved, non-fenestrated catheter. It is claimed that by this instrument very small fragments of stone can be detected within the bladder. (For details see *Med. and Surg. Reporter*, Oct. 12th.)

# Reviews and Notices of Books.

THE PHYSICIANS AND SURGEONS OF THE UNITED STATES. Edited by WILLIAM B. ATKINSON, M.D., Author of "Hints on the Obstetric Procedure," Permanent Secretary of the American Medical Association, etc. 8vo, pp. 788. Philadelphia: Charles Robson, 1878.

THERE is a Spanish proverb to the effect that no man can be considered as having lived to any purpose who has neither written a book, built a house, or become the father of a boy. If to this standard the additional provisions are made that such a person, being a physician, must have written an article for a medical journal, must have been an officer in his county society, or have been, according to his own testimony, "an active worker in the profession," we can safely say that every one referred to in the volume before us is a man of reputation and "adorns the profession of his choice." Very much has been said in condemnation of the purposes for which this book was published; but, taking all the objections into account, we cannot look upon the venture as any more or less than a successful attempt to minister to the vanity of men who are either great already, or who wish to be. The histories are presumed to be truthful, because for the most part they are written under the direct supervision of the subjects themselves. From this point of view they are valuable as furnishing trustworthy data for obituary notices. As far as the records of facts are concerned, we believe the histories are trustworthy; but when any comments are indulged in, or attempts made at analyzing characters, considering the authorship of the same, there is naturally engendered that prejudice which lawyers attach to willing and perhaps partial witnesses. Still it is pleasant to know how old your friend is, where he was born, whom he married, how many children he has, and whether or no his wife or himself descended from any of the older and more influential families. All of this goes to prove that blood will tell. In proof of this we can refer to at least one hundred and twenty-five physicians so descended, who arose in their profession, became either secretaries of their county societies, aldermen of their villages, or made themselves specialists, and enjoyed large and lucrative practices. One of these gentlemen performed tracheotomy six times, another cut for hernia three times, another wrote a pamphlet which was reprinted in his village paper and resulted in his appointment as inspector of the school board, while another became trustee of a female seminary.

But Dr. Atkinson, in the generosity of his spirit, has doubtless found it hard to draw the line of distinction, and has perhaps trusted too implicitly to the statements of the subjects themselves. Under the circumstances, he has done much better than we could have expected, and, on the whole, has used his facilities to great advantage in publishing from different parts of the country interesting and instructive histories of many truly representative men. Of the whole number of autobiographies given (over twenty-six hundred) there are but two hundred, or, at most, three hundred subjects who have reputations which warrant any history whatever. These are the sketches which are interesting, and fully redeem the purposes of the publication. With the other two thousand or more there is much amusing reading, showing poor, vain human nature in all the various phases in which it can be studied. Particularly is this the case when an autobiographer gets upon a hobby, and reminds us of the boy in the corner who succeeded in finding the plum in the Christmas pie. The establishment of a principle is a grand thing, whether it refers to the foundation of an empire or a new treatment for an ulcerated os, but it is hard to make unprejudiced persons think so. The work is illustrated with fifty steel portraits of the chiefest among the two thousand. The majority of these men are well known, and the likenesses are as good as could be expected when obtained without, of course, the consent of the originals. Of the remaining portraits, there are several which we presume are fine pictures; at all events, as mere works of art, they help to embellish the book and add to the general amusement of the reader.

In conclusion, we congratulate Dr. Atkinson on the success of his undertaking. He has certainly given us a very entertaining, well written, and instructive volume. If anything, he has done more than he promised. In a future edition we hope he will keep an eye on the man who has invented a speculum or a splint, who has found out a new method of extension, who was an officer of the American Medical Association, who calls a one-horse dispensary a hospital, or who has helped in any other way to make a reputation by "revolutionizing the practice of our art."

The work is supplied with an analytical index of subjects treated of by the distinguished men mentioned, but, being a very partial record, is of little value to the student. The typography of the volume is very bad, the ink inferior, and the paper poor.

AIDS TO CHEMISTRY: Specially designed for Students preparing for Examination. Part II.: The Metals. By C. E. A. SEMPLE. London: Baillière, Tindall & Cox, 1878.

IN a little work of about fifty pages, the most important facts about the metals have been very well condensed and arranged. A brief appendix gives a synopsis of the theory of chemistry. The book will be a very useful one to the student, for whom it is designed.

THE PRINCIPLES AND PRACTICE OF SURGERY. By JOHN ASHHURST, JR., M.D., Professor of Clinical Surgery in the University of Pennsylvania, Surgeon to the Episcopal Hospital and to the Children's Hospital, etc. Second edition, enlarged and thoroughly revised, with five hundred and forty-two illustrations. 8vo, pp. 1,040. Philadelphia: H. C. Lea, 1878.

THE second edition of this work comes to us with a declaration on the part of the author that no pains have been spared to render it worthy of a continuance of the favor with which it has heretofore been received. To this end, every portion has been revised, and a considerable amount of new material has been added. The reputation which this work has made for itself as a clear, concise, comprehensive and scholarly treatise upon surgery, is unquestioned. The large experience of the writer as a clinical teacher, his intimate knowledge of the literature of his subject, his authority as an accomplished scholar, have tended to make the work one of peculiar value and excellence. The arrangement of subjects is systematic and natural, while their treatment is surprisingly exhaustive, showing a most thorough acquaintance with the ancient and modern literature of surgery. The peculiar excellence of this edition is that the most recent improvements in surgical practice are noted, many of the references being made to articles which have appeared in the journals only a few months since. All authorities are carefully named, and the greatest pains seem to have been taken to

give each observer his due amount of credit. As a practical work for ready reference it is unsurpassed, and although compressed within the compass of an ordinary octavo volume, it has the scope of an encyclopædia of surgery. It is well printed and profusely illustrated. The cuts are well selected, and many are original.

# Reports of Societies.

## MEDICAL SOCIETY OF STATE OF NEW YORK.

*Stated Meeting, February* 5, 1879.

HEMORRHAGE DURING ABORTION—DISCUSSION ON DR. LUSK'S PAPER.

DR. FORDYCE BARKER, of New York.—MR. PRESIDENT:—I shall detain the Society but a few minutes in discussing the questions brought forward in the paper to which we have listened with so much interest, and shall simply speak upon a few special points. The paper is one of great importance, and I have no doubt the statements with regard to the great mortality resulting from hemorrhage associated with abortion will strike many of the profession with surprise. And yet I am sure that these statements will be confirmed by every one who carefully examines statistics upon the subject, and by all who have a large consultation practice. For my own part I have known of a greater number of deaths from hemorrhage occurring at the time of abortion than I have known from hemorrhage occurring at the time of labor. Indeed, I have seen but one case of death from hemorrhage occurring at the time of labor. But I have seen in consultation at least fifteen or twenty cases in which death occurred as a consequence of hemorrhage in connection with abortion. In fact, hardly a year passes that I do not see one such case. The importance, therefore, of arresting hemorrhage in connection with abortion has, to a considerable extent been overlooked by the profession.

But this is not all; even where death does not result at the time, there is a large class of cases in which the health of the patient is broken down by a hemorrhage which continues persistently, perhaps only moderate in degree, for weeks or months after the occurrence of an abortion.

Of this class of cases I see very many every year. And here is almost the only point where I shall take issue with the author of the paper, upon the statement that in abortions which occur within the *second* month of utero-gestation but little treatment is required. If he had qualified the statement by saying that *ordinarily* but little treatment is required I should have accepted it. But I have seen patients—it is only last week that I saw one who was perfectly exsanguinated by a hemorrhage which occurred, it was supposed, and I argued, from the size of the ovum, within the eighth week of pregnancy. When I saw her she was perfectly pulseless; her respiration was rapid, and the surface of the body was covered with a clammy cold perspiration. The vagina was tamponed; the foot of the bed was raised, the patient's head was lowered, and stimulants in small doses were administered before I saw her. On examination soon after it was found that the tampon was getting quite moist with blood. It was removed, and then, by manipulation very much in the manner described by the author, I succeeded in removing the ovum, which certainly could not have been more than eight weeks old.

So also in other cases I have several times been called to see patients who had profuse, even dangerous hemorrhage, from abortion occurring at this very early period in pregnancy. But I will agree with the author of the paper that these are rare cases.

Just this moment there comes to my mind the case of a lady, who, while at church on a Sunday, suddenly found herself flowing. She had only passed one menstrual period. She was taken from the church, placed in a carriage and carried home, and a physician was sent for. When, a few hours later, I saw her it seemed almost hopeless to attempt to save her life, she was so perfectly exsanguinated. This gives me an opportunity to speak of one resource for averting hemorrhage, sometimes dangerous in early abortions, almost the only resource not alluded to by the author of the paper. In early embryonic abortions the manipulations for the removal of the ovum described by him are not practicable, because the uterus is not yet sufficiently developed.

In these early abortions attended by profuse hemorrhage I am accustomed to place the patient in the position described in the paper, then place a rubber sheet under the patient, so as to protect the clothing and the bed perfectly, and conduct the water to run into a pail below, and then inject into the vagina a large quantity of very hot water, from 104 to 110° F. I believe that one may always be sure that this will positively, absolutely, and efficiently arrest the hemorrhage. In all the cases where I have resorted to this method I have never found it necessary afterward to subject the patient to manipulations for removal of the ovum. It has always come away spontaneously, sometimes the next day, or the next day but one, and absolutely without hemorrhage.

But, to return to the class of cases, to which I have already alluded, still in connection with the question of abortion occurring within the first two months, I see cases where the accident has occurred two or three months before, and the patient has become exceedingly anæmic, and the general system has become broken down by a constant and persistent daily loss of a small quantity of blood.

It is in this class of cases where I have found the wire curette most useful, and have seen the greatest benefit follow its employment. Sometimes its application is followed by one free hemorrhage, but it ceases entirely afterward. I have seen cases of this kind where the loss of blood continued for two or three months, although the abortion occurred when the patient had missed only one menstrual period.

One such case was a very curious one, inasmuch as the patient was a maiden lady, thirty-three years old, and whose character had never been called in question. She had passed but one menstrual period, and just before the eighth week after the last menstruation she was attacked suddenly with profuse flooding, which was arrested by the means then employed. But from that time she continued to loose blood in small quantities, perhaps not more than an ounce daily, and the loss persisted for nearly three months, when I was asked to visit her in consultation. I found that no vaginal examination had been made, because the patient had refused to submit to it. I insisted upon an examination, which was finally granted, and I found the uterus somewhat enlarged, the os somewhat patulous. On the following day I made use of the wire curette, and brought away nearly a wine glassful of material which, when submitted to one of our most competent microscopists and histologists, was found

to be the remains of a decidual formation. I was not nearly so surprised at the result of the examination as was the attending physician.

There is only one other point to which I will allude, and that is in relation to the tampon.

In cases of abortion, where I find it necessary to tampon, I never trust any kind of vaginal tampon, but always tampon the cervix uteri with a compressed sponge of proper size, and then only fill the vagina just sufficiently to keep the sponge in place. This, if properly done, is certain to arrest the hemorrhage, and, in from eight to twelve hours, during which the patient rallies from the dangerous exhaustion following the loss of blood, the cervix is sufficiently dilated to permit the safe removal of the entire ovum by the procedure described by the author of the paper.

## NEW YORK PATHOLGICAL SOCIETY.

*Stated Meeting, January* 25, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

### ACUTE OSTITIS—ITS DEVELOPMENT.

DR. HEITZMANN presented a microscopic specimen of acute ostitis, and made the following remarks upon the development of the condition:

The process of inflammation can best be studied experimentally on compact bone, which, by being touched with hot iron, promptly reacts upon the irritation. Besides the well-known disturbances in the vascular system, the tissue itself also invariably partakes in the reaction. First the lime-salts are dissolved out in certain territories around the bone-corpuscles, this being a merely chemical action; next the glue-giving basis-substance is liquefied, and thus the protoplasmic condition of the bone-tissue re-established. As the network of living matter is present also in the calcified basis-substance, the liquefaction of the latter is the only requirement for re-establishing the embryonal or medullary condition of the bone. By increase of the size of the granules of living matter within the protoplasm, new medullary elements originate, these representing what has been termed the inflammatory infiltration. Up to the eighth day the compact bone, through the process of inflammation, is transformed into cancellous structure, and all medullary spaces are crowded with medullary elements, newly formed blood-corpuscles, and capillary blood-vessels. The medullary elements are connected with each other by delicate threads of living matter, and represent a tissue, though an embryonal, undeveloped tissue. Through rupture of the connecting threads isolation of the medullary elements results, and then we have pus-corpuscles before us, the sum total of which is termed an abscess. Against the views of S. Stricker, who considers all inflammatory elements as pus-corpuscles, H. maintains, that even the inflamed tissue remains a tissue with union of all constituent elements, lest suppuration should be the termination of the inflammatory process. The old doctrine of the two main varieties of inflammation, viz., the plastic and the suppurative, is fully corroborated by his recent microscopical researches.

### COMPOUND PUNCTURED WOUND OF CRANIUM—REMOVAL OF FRAGMENTS—MENINGITIS—DEATH.

DR. BRIDDON presented a specimen of the above, and gave the following history:

E. B. Staats, aged 61, native of New Jersey; married; carpenter; was admitted to the Presbyterian Hospital, January 11, 1879.

On the previous day, whilst passing a building in the course of demolition, he was struck on the head by a falling brick and knocked down insensible; he came to himself in a few minutes, and then observed that he could not see with his left eye, which condition also passed away in a short time.

There is a linear wound of the scalp about an inch and a half long, situate on the summit of the vertex, and about an inch to the right of the median line; beneath it is a fracture of the skull, small, and in the form of a semicircle, the convex border of this fragment driven in beneath the inner table of the adjoining bone, and impacted between the fragments was a small lock of hair; a hole was nibbled away from the adjacent bone large enough to admit an elevator, with which the depressed bone was raised and detached, and immediately beneath was found a small pointed and detached fragment from the inner table about a quarter of an inch long, its apex pointing toward the dura mater.

The margins of the bone were smoothed off by the rongeur, and the wound was dressed with proof-spirit.

Everything went well until the 14th, when he had a chill followed by rise of temperature and headache; pupils were rather contracted, and there was some intolerance of light.

Headache continued about the same until the 17th, when it was aggravated by two or three attacks of vomiting, and it was then remarked that he did not respond with his usual promptness to questions.

19th.—Mental hebetude has deepened into stupor; pupils much contracted; pulse, which has never been over a hundred, is now below 80. The dura was found bulging in the wound, and there was no pulsation in it. An incision half an inch long was made through the membrane, giving exit to a tiny rivulet of pus, which could not be estimated on account of a pretty free venous hemorrhage. The blood was purposely allowed to flow for a few minutes, and was then readily arrested by very moderate pressure. While the flow continued, he quite lightened up, and it was noticed that his previously contracted pupils dilated; but the improvement was evanescent, and he relapsed again into a condition of stupor.

On the night of the 20th he had a severe chill, several involuntary discharges from the bowels, and retention of urine. His temperature on the following morning 103°. Coma was profound; there was occasional twitching of the muscles of the face; no convulsive movements of the extremities; reflex movements abolished on the right, and only very slight fibrillary movements could be elicited on the left side.

He continued in about the same condition until the 21st, when he died. Twenty minutes before death his temperature was 104°.

*Autopsy*, twenty-six hours after death.—Rigor mortis well marked. A crucial wound of scalp midway between nasal eminence and the occipital protuberance, and one inch to the right of mesial line. Opposite the centre of this was a circular opening in the skull. The floor formed by the dura was depressed. On removing the calvarium, which was very thin, there was found considerable injection of the sinuses, and a layer of false membrane capping the left hemisphere and adherent to the parietal arachnoid. The pia on both sides was injected, but much more so on the side opposite the injury. There was a layer of greenish pus in the subarachnoidean tissue on that side also. The evidences of inflammatory mischief were much less marked on the side of

the injury, and the brain itself was rather anæmic than otherwise. There was no collection of pus in the immediate vicinity of the wound.

There were old adhesions in the chest, and evidences of old bronchitis, and in one lung a small patch of fibroid induration. All other organs were found healthy.

Dr. Briddon remarked, in conclusion, that the general results of trephining were disastrous, even when the operation was most imperative, as for instance, in punctured wounds of the cranium. He had heard of two cases only in the records of the hospital (Presbyterian) in which such an operation had proved successful. These had been performed by Dr. S. B. Ward, a former surgeon of the institution. In Paris, where the operation had been quite fashionable, there have been no recoveries for ten years. He believed, however, that we were approaching the period when the indications for operation would be more exactly defined than at present, and when there would be a favorable reaction in favor of operative interference.

Dr. Keyes concurred with the latter opinion. He believed many of the fatal results were chargeable to the fact that the cases were not operated upon until beyond hope. Again, he had reason to believe that trephining, in common with other grave operations, is destined to have its general mortality reduced by a more general adoption of the antiseptic system in hospitals.

### CYST-ADENOMA OF THE BREAST.

Dr. C. C. Lee presented a cyst-adenoma of the breast, which he had removed by operation from a patient in the State Woman's Hospital. She was a German by birth, aged twenty-one years, married, and the mother of one child. Nine months ago, and while in the fourth month of pregnancy, she noticed for the first time a lump on the left breast, an inch below and to the inner side of the nipple. The growth increased gradually, and was the seat of lancinating pains. When the child was five months old, she was compelled to cease nursing it, and after consulting several physicians, with varying results as to opinions, she finally applied to the Woman's Hospital for relief. On examining the tumor, Dr. Lee discovered that there was indistinct fluctuation, that the nipple was not retracted, and that the general appearance was in favor of non-malignancy. It was considered advisable to remove the growth, and the operation was done by an S-shaped incision. On cutting into the tumor after its removal, the contents were found to consist of a cheesy, fatty material, similar to that seen in strumous testes.

The wound healed promptly, and ten days after the operation, and at the time the case was reported, the patient was convalescent.

### THREE VESICAL CALCULI REMOVED BY THE SUPRA-PUBIC OPERATION.

Dr. Keyes presented three specimens of stone, all removed from the bladder by the supra-pubic operation. The patients died in each instance, and Dr. Keyes stated that his reason for presenting the stones was not from any peculiarity either in the operation or in the specimens, but that he might put the cases upon record, since he considered it, perhaps, more important to report failures than successes. Dr. Keyes had removed stones from the bladder by lithotomy and lithotrity, all told, thirty-eight times. He had lost four cases; three of these were the supra-pubic operations to be detailed. The other fatal case was a broken-down subject of sixty-five, with a large, hard stone, which had caused much suffering for many years.

Of the three cases, the first ought to have recovered by any operation; the last two would have died doubtless, under any operation.

Case I.—X——, aged 75, examined in May, 1877, was found to be in perfect health, with a prostate only moderately enlarged, not very much cystitis and presenting every evidence of healthy kidneys, so far as the urine could decide the question. The stone was caught in a lithotrite, and measured 1¼×1¼ inches. The stone was very hard, and lithotrity at a single sitting, for large stones, was not known at this date (May, 1877) to Dr. Keyes. The nervous, irritable temperament of the patient, and the size of the stone, made slow lithotrity undesirable, and lithotomy was proposed, but declined by the patient.

Two and one-half months later, during July, the patient's symptoms became more distressing, and he was brought back by his physician, demanding lithotomy.

The supra-pubic operation was performed. The bladder was first thoroughly washed out with carbolized water, and left empty. An incision in the median line above the symphysis reached the bladder promptly, its exact position being made evident by the point of a steel sound passed through the urethra. The bladder was held up by two strong silk threads passed through its whole thickness on either side, and between these threads the viscus was opened. The peritoneum was not molested. A little carbolized water was found in the bladder. The stone, weighing a few grains over an ounce, was easily extracted with straight forceps. A soft rubber catheter was placed in the wound, attached outside to a tube, so that it might act as a syphon. The bladder-wound was sewed up, and the outside wound left open. Certainly not one ounce of blood was lost. The whole operation occupied less than half an hour.

The patient died early on the third day, with a temperature of 104¼°. There was no tenderness over the abdomen, excepting at one spot low down in the left groin, near the middle line—suggestive of cellulitis. Drainage continued perfect until the end, and there was no suppression of urine. Autopsy refused.

Case II.—X——, age 73, had been cut sixteen years previously by Dr. Van Buren in the perineum, and six phosphatic stones removed. He had atony of the bladder, and after a few years he became tired of washing out the viscus, and stones gradually reformed. He visited Dr. Keyes for the purpose of being sounded. The urine contained albumen and casts, and there was much cystitis. A searcher, gently introduced, immediately encountered phosphatic stones.

The patient was laid up for two weeks with cystitis as a result of this exploration, and no operation was advised. His sufferings, however, continued to torment him until he demanded relief. A lithotrite was therefore passed, one stone caught, crushed once, and nothing more attempted. This operation aggravated the cystitis, and, with Dr. Sands in consultation, supra-pubic lithotomy was decided upon.

The operation was short and without complication; one crushed and two whole stones, weighing collectively three ounces two drachms and ten grains, were removed. A soft catheter was left in the uninjured urethra.

The drainage was effective; no suppression occurred; but the wound did not unite, and the patient gradually became delirious and uræmic, and died

on the seventh day. Autopsy revealed granular kidney and slight pyelitis.

Case III.—X——, aged 65, was operated on in Bellevue Hospital, October 29, 1877, by lithotrity, and a stone of one and a half inch diameter, composed of urates and uric acid, caught and crushed several times. The size and hard, sharp edges of the fragments caused some cystitis, and after a rest of a couple of weeks Dr. Keyes decided to give ether, and crush as much as possible at a single sitting, using a new lithotrite of Reliquet's, which was warranted not to clog. Collin et Cie., the makers, however, had modified the instrument in its construction in such a a way that it did clog admirably. After a few fragments had been crushed, it became evident that the blades were clogged. No efforts succeeded in getting rid of the fragments which filled the female blade. The instrument was therefore withdrawn and enough force had to be used during its extraction to divulse (slightly) the urethra at its point of natural constriction, about two inches from the meatus.

The patient had a chill, and did badly. His cystitis increased, and supra-pubic lithotomy was performed, drainage being managed by a convolvulus catheter passed through the bas-fund and out at the anus.

The patient did not rally. Death occurred on the second day, and surgical kidney was found on both sides at the autopsy.

#### URIC ACID CALCULUS OF LARGE SIZE REMOVED BY BIGELOW'S METHOD.

Dr. Weir exhibited the crushings of a uric acid calculus, weighing 360 grains, which were removed by Bigelow's method, from a man aged 73 years. The patient appeared in robust health, notwithstanding he had the history of frequent attacks of renal colic extending over a period of eight years, and had suffered from symptoms of vesical calculus for three years. The stone was crushed in fifteen minutes, the whole operation occupying forty-two minutes. The patient did well for six days, at the end of which time he was allowed to go into the solarium of the hospital. The second day after this he was seized with a chill and severe pain in the left kidney. The chill was followed by a temperature of 106° F. The chill was repeated the following day, with a recurrence of the temperature. Diarrhœa, persistent vomiting, and hiccough succeeded, and he finally sank in a somnolent condition, dying a month after the operation. Except for the first few days following the urethratory chills, the temperature ranged from 99¼° F. to 102° F. The urine during all this time was passed freely, and was not markedly changed in character.

At the autopsy a typical example of surgical kidney was found upon the left side, and a cystic degeneration of the corresponding organ on the opposite side. The left ureter was blocked by a number of small calculi, and apparently this had been the cause of the inflammation which had invaded the kidney. The bladder was uninjured.

#### UN-UNITED FRACTURE OF THIGH.

Dr. Weir presented a second specimen, which consisted of an ununited fracture of the thigh removed post-mortem from a Scandinavian sailor. Fourteen months before admission the patient sustained the fracture by a fall on shipboard. He had been treated by splints and extension for four months, with unsatisfactory results. When admitted to the New York Hospital, the shortening was two and a half inches, and motion was free. The first method of exciting inflammation for the deposit of new bone was made by forcibly rubbing the ends of the bones together, applying a plaster bandage and Buck's extension. This failed, and when Dr. Weir came on duty he bored the ends of the fragments with Brainard's drill. The point of one of the drills broke and remained in the bone. The operation was performed on the 24th of December, and the patient did well until January 2d, when he was seized with a chill which ushered in an attack of erysipelas. The latter appeared to originate in an abrasion over the tibia, the result of the previous application of plaster-of-paris to the pare. The redness extended upward on the thigh, but did not reach to the non-union. At the autopsy the knee-joint was moderately infiltrated with pus. How to explain the latter condition was difficult, in view of the fact that no osteo-myelitis had been excited by the operation, except by a lymphangitis, as recorded in several cases by Verneuil. The ends of the fragments were rounded, supplied with a smooth membrane, and surrounded by ligamentous tissue. It was quite evident that nothing short of resection of the ends of the bones would effect bony union of the parts.

## CHICAGO GYNECOLOGICAL SOCIETY.

*Regular Meeting, Dec.* 27, 1878.

Dr. D. T. Nelson, in the Chair.

(Special Report for Medical Record.)

#### PLACENTA PRÆVIA.

Dr. E. O. F. Roler read a report of a fatal case of placenta prævia, with remarks. He thought the descent of the ovum to the lower part of the uterine cavity depended on a failure to make prompt attachment at the upper part, from faulty decidua, or late fecundation, or separation of the mucous surfaces of the uterus "to such an extent as to furnish an easy passage through its cavity." The last condition was less likely to exist in primiparæ. He thought the ovum might become attached to the cervical lining, as well as just within the internal os; in the former case "abortion at an early day must be inevitable," for the os internum would prevent the invasion upward of the growing ovum, and, as the os externum has slight powers of resistance, it would become early distended and dilated, and expulsion would result. He had met with one case of this kind: abortion had occurred at the third month, with alarming hemorrhage, that neither ergot nor ice locally applied had power to check, but which ceased at once on the injection of persulphate of iron. After discussing the various definitions of placenta prævia, he stated his own to be "implantation *over* the os internum within the cavity of the body of the uterus." He did not believe in the doctrine of the development of the uterine neck during the later months of gestation. Were such doctrine true, in placenta prævia there would always be hemorrhage during this time, which was not the case, some cases wholly escaping hemorrhage until the beginning of labor. He therefore regarded hemorrhage, until near the end of gestation, in placenta prævia, as purely *accidental*.

As to treatment, he was inclined to the view that the removal of the placenta, "to the extent of clearing the canal for the advancing fœtus," was indicated. He thought it well to separate the placental attachment one-half the circumference of the neck, and to rupture the membranes and bring down the border of the placenta, as occurs in the accidental variety. The advancing head or breech would then act as a com-

effect a cure,' while the State Board of Charities have expressed the opinion that 'inebriates need appropriate methods of restraint, attendance, and treatment, quite as much as the insane.' The proposed measure will merely authorize the confinement of inebriates in a suitable institution, leaving the institution to be established hereafter. In many cases the habitual drunkard is himself anxious to reform, and often he makes constant and energetic attempts to do so, but without avail. In such an asylum as we propose, a cure might be effected."

# Correspondence.

## THE ALTERATION OF PRESCRIPTIONS BY DRUGGISTS.

To the Editor of The Medical Record.

SIR:—Dr. Fordyce Barker's article on "The Alteration of our Prescriptions by Druggists," vide MEDICAL RECORD, page 22, Jan. 1, 1873, is an effort in the right direction. Not long ago a patient suffering from cystitis was given the following prescription: ℞. Ammoniæ benzoas, ʒ iij.; Buchu fl. ext. (Squibb's), ʒ iij.; Syrup simplic., ʒ i. M. S.: One tablespoonful every four hours.

I requested the patient to bring the medicine to me before using it. On inspection, the ordinary flaky appearance of the ammoniæ benzoas floating in the liquid was absent. I requested the prescription clerk to explain his method of dissolving the benzoate. "Why," said he, "I put them together in the mortar, rubbed them a little, and they dissolved (the flakes)." I immediately repaired to the store and asked the proprietor for an ounce of the benzoate. He said it was the first call he had had for it, and had never kept any in the store! There was no other conclusion than one in this case. He had not confounded it with carbonate, for he said he had used the benzoate. The reason for combining it with buchu was, my patient refused to take it in pill form.

In consultation with Dr. S——, in a case of phlegmonous erysipelas, we gave the following prescription: ℞. Potas. chlorat., ʒ ss.; Tr. ferri chlor., ʒ ij.; Syrup aurant cort., ʒ ij. M. S.: One tablespoonful every four hours. Having occasion to visit a pharmacy I found the messenger awaiting the compounding of our prescription. I overheard the following conversation: "We are entirely out of the chlorate, so I put in the acetate." This was said in an undertone to a member of the *firm*, whereupon the medicine was passed over the counter to the messenger. Dr. S—— having written the prescription, they did not know that I was acquainted with its construction or anything concerning it. In fact, they were not aware of my presence.

Another kind of substitution sometimes occurs, viz.: through presumption, in this case, a small boy was sent to one of our drug stores with a slip of paper, on which his mother had written, "One ounce of powdered rhubarb." On his way to the store he lost the paper. He told the clerk of it, and then said it was something like "rube" or "red," but could not tell the whole word. A powder was sent by the boy. The mother took a teaspoonful of it. I saw her *two* days thereafter. Her face and neck were swollen and congested. Her eyes were congested and glaring. Abdomen was greatly distended with gas, tender and reddened. The pain in the throat, œsophagus, stomach, and, in fact, the whole alimentary canal, was very ex cruciating. Marked anorexia, pulse weak and thready She said "her whole insides were on fire." The odo of mercurial salivation was simply horrible. A con tinuous stream was flowing from the angles of th mouth. After her recovery she related in the pres ence of the boy the aforementioned circumstance regarding the purchasing of the powder. There wa neither writing nor label on the package. The pow der sent her was the red oxide of mercury. I at onc repaired to the store from which the powder was pur chased, and the clerk denied nothing, but said tha he "*thought* he wrote poison on the outside." Physi cians are in some respects simply "drummers" for th pharmacists. We send them their best class of busi ness and rely on their honesty and skill, and, in fact, place the lives of our patients and our success as prac titioners in their hands. Not only have these thing happened here, within fifty miles of the principal city of this continent, and in a place of a population of about 14,000 souls, but I know of instances (one happening to myself) where the pharmacist induced a patient to have my prescription laid aside, persuading him in the meantime to have in its stead a bottle of a nostrum compounded and patented by himself. Is it not time to have a stop put to such outrageous proceedings?

Yours truly,
REGULAR.

JANUARY 27, 1879.

## INGROWING TOE-NAIL.

To the Editor of The Medical Record.

DEAR SIR:—My attention was directed to the following passage in an article by Dr. J. D. Neet, MEDICAL RECORD, 1877, page 557: "There is a method of treating this nail that is quite as satisfactory as evulsion, far less painful, and, above all, is an eminently conservative process. In the first place, drop a few drops of liq. potassæ (ʒ iij. to ʒ j., etc.), upon this ulcerated surface, with its imbedded nail, four or five times a day." Continue this till the granulations have receded, so as to expose the edge of the nail, then "take a thin piece of selected cork—which is gently inserted under the nail." The following case will attest the merits of this treatment: Case, R. D. In May, 1874, a cow stepped on the great toe of her left foot and forced the nail in the flesh. When she applied to me, I found the nail one-third covered with flesh. I commenced using liq. potassæ ʒ iij., water ʒ j., as I supposed the above to mean, but was disappointed with the results, so I made a solution of caustic potassæ, ʒ iij., water, ʒ j., and applied twice daily. The granulations receded rapidly, and the edge of the nail was soon visible. I then inserted wedge-shaped pieces of cork under the nail, increasing the thickness of the wedge as the nail would rise from its bed. It is now three weeks since treatment was suspended, and the patient is able to wear her shoe, with no uneasiness of any kind.

A most happy plan of treatment, where the patient will await the results.

Very respectfully yours,
W. A. FANNING, M.D.

NINTH AVE., COR. 61ST ST., N. Y., Feb. 19, 1879.

IODOFORMIZED COLLODION (MORETIN).—*Dissolve* five parts of iodoform in one hundred of collodion. Useful in arthritis and rheumatism.

## ARMY NEWS.

*fficial List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 23 to March 1, 1879.*

FITZGERALD, J. A., Capt. and Asst. Surgeon. anted leave of absence for four months, on surn's certificate of disability, to take effect March 1, 79. S. O. 42, A. G. O., February 20, 1879.

POWELL, JUNIUS LEVERT, appointed Assistant Surn U. S. Army, to date from June 6, 1878, having sed the Army Medical Board in session in New rk City.

# Medical Items and News.

ONTAGIOUS DISEASES — WEEKLY STATEMENT.— nparative statement of cases of Contagious Diseases orted to the Sanitary Bureau, Health Department, the two weeks ending March 1, 1879.

| eek Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| b. 22, 1879. | 0 | 10 | 165 | 1 | 6 | 49 | 0 | 0 |
| r. 1, 1879.. | 0 | 3 | 173 | 1 | 12 | 32 | 0 | 0 |

DEATH OF DR. RANDOLPH MARSHALL.—Dr. Randlph Marshall, Sr., an eminent physician of Cape ay county, New Jersey, was found dead in bed at his idence, in Tuckahoe, on the night of Wednesday, b. 19th. Deceased was 69 years of age.

COLLEGE OF PHYSICIANS AND SURGEONS.—The Sevy-second Annual Commencement of the College of ysicians and Surgeons was held at Steinway Hall the evening of February 28, 1879. The hall was ed to overflowing. The music was furnished by afulla's Band. The exercises were opened by prayer Rev. Sullivan H. Weston, D.D., after which Presiat Barnard, of Columbia College, administered the ppocratic oath to the graduating class. The degree Doctor of Medicine was then conferred upon the *nety-five* graduates by Prof. Alonzo Clark, M.D., esident of the Medical Faculty. The announcement the prizes was made by Prof. T. M. Markoe, who ted that none of the essays received were sufficientmeritorious to receive the Stevens' triennial prize. e subjects for that prize for 1882 were "Lesions of e Brain" and "Diphtheria in its Relations to Memanous Croup." The prize is open to universal comtition. The Joseph Mather Smith prize of $100, en to the Alumni, was awarded to Dr. William O. oore, of the class of 1872. The *first* Harsen prize $150, for the best report of clinical studies in the ew York Hospital for any four consecutive months the year, was awarded to Frederick M. Brown; the *cond*, $50, to C. Hart Merriam; and the *third*, $25, Wisner R. Townsend. Prof. Wm. H. Draper anounced that six essays had been received for the lumni prize of $500. Of those four were excellent, at neither was regarded sufficiently worthy to become "substantial contribution to medical knowledge," nd therefore no award was made. The prize will main open for competition until 1880. Prof. John Curtis then announced three prizes of $100, $50, and $25, respectively, for the best public examinations sustained among ten members of the graduating class entitled by efficiency to compete therefor. The *first* prize was awarded to John Ward Hopper, A.B., of New Jersey; the *second*, to John Bernard McMahon, A.M., of New York; the *third*, to Theodore Wellington Corwin, of New Jersey. Three prizes of $500, $300, and $200, respectively, will be awarded next year from the accumulated Dr. Jacob Harsen prize fund to the three of the ten members of the graduating class who are entitled by high proficiency to enter for competition. The valedictory address was delivered by Dr. William F. Wright. The address to the graduates was delivered by Rev. Roswell D. Hitchcock, D.D. It was pithy, and contained much sound advice. Said the speaker:

"Just now I am convinced we are making too many doctors, such as they are; too many lawyers, such as they are; too many ministers, such as they are. I know that no profession is crowded—in its upper parts, but too much crowding at the bottom hurts the top, so that candidates for the higher ranks are fewer, if not inferior. I ask you is your profession yielding its proper proportion of great authors and practitioners and discoverers? I am better acquainted with the others, and I know that the legal profession does not yield its proper proportion of great jurists and statesmen, or the clerical profession its proper proportion of great preachers and theologians. Our educational system, I am constrained to say, is seriously defective in this respect." Dr. Hitchcock thought that if some of our professional schools would die the gain would be great. The next best thing was to establish a system of rigid, merciless examination. If the gain was temporary, it would prove the wisdom of such a course; if it was permanent, it would show that it ought to have been adopted long ago.

BELLEVUE HOSPITAL MEDICAL COLLEGE. — The Eighteenth Annual Commencement of the Bellevue Hospital Medical College was held in the Academy of Music on the afternoon of February 27, 1879. The Academy was completely filled. The music was furnished by a grand orchestra under the direction of Dr. Damrosch. The exercises were opened by prayer by Rev. Alfred B. Beach, D.D., Chaplain of the College. The Hippocratic oath was administered to the graduating class by the Chaplain. The President of the Faculty, Prof. Isaac E. Taylor, M.D., then conferred the degree of Doctor in Medicine upon the one hundred and sixty-five members of the graduating class. The prize of $200, which was offered by Prof. Lewis A. Sayre for the best essay on "The Pathology and Etiology of Pott's Disease," was awarded to Dr. Seth W. Williams, of New Hampshire. The address to the graduates was delivered by Hon. Richard O'Gorman. Among the rounded sentences to which the speaker gave utterance, the following is pregnant with suggestions: "It is superfluous, I trust, to call attention to the need of the utmost secresy in regard to the private matters that are intrusted to physicians, who indeed may be said to know the ages of all the village belles better than do the family Bibles. Some one has said that every one at forty is either a fool or a physician. The last can be numbered; but the former are beyond computation, and there are doubtless enough to supply graduating classes for ages to come." The valedictory address was delivered by Hubert Haywood, M.D., of N. C., a member of the graduating class. The class dined at Delmonico's in the evening.

ARCHIVES OF MEDICINE, a bi-monthly journal, E. C. SEGUIN, M.D., Editor, 8vo., pp. 112. New York, G. P. Putnam's Sons. Subscription price, $3.00 per year; single numbers, 60 cents.

This new journal promises to be a very valuable addition to our periodical literature. It is designed to be, in some respects, the continuation of the "Archives of Scientific and Practical Medicine," and of the "American Clinical Lectures," of which the third volume closing the series was issued last December. The scope of the present journal includes original articles on various subjects sufficient to fill over half of each number; an editorial department where topics in scientific and practical medicine will be discussed; reviews of books, etc.; abstracts, translations, etc.; and a case record where short records of cases will be given. The fact that so eminent and thoroughly qualified a person as Dr. Seguin has been secured as editor, ensures all that is promised for this journal; and he has the aid of a most efficient corps of assistants and collaborators. The assistant editors are Drs. T. A. McBride, Matthew D. Mann and L. A. Stimson.

The opening article is by Dr. T. G. Thomas, on "A New Method of Removing Interstitial and Submucous Fibroids of the Uterus," an abstract of which has been published in these columns.

Dr. Mary P. Jacobi gives a "Provisional Report on the Effect of Quinine upon the Cerebral Circulation." From observations and experiments, made with her characteristic scientific precision, she is inclined to the opinion that large doses of quinine in man diminish the cerebral circulation; and that this is due, in part at least, to its effect in increasing the diastole of the heart which causes increased aspiration of blood to the heart, thus unloading the veins. In experiments on rabbits, however, the cerebral circulation did not seem to be much influenced by the drug.

"The Aid which Medical Diagnosis Receives from Recent Discoveries in Microscopy," is the title of a paper by Dr. C. Heitzmann. There is much in the article that is interesting, and its special aim, that of showing the clinical importance of the microscope, is very praiseworthy. The portion devoted to the author's theory, however, that the microscopical condition of the white blood-corpuscle is an accurate measure of the constitutional condition of its possessor, bears somewhat the impress of an imaginative mind.

The first of a series of "Elementary Lessons in Electricity," is given by A. Floyd Delafield, A.B., in a clear and systematic manner.

In the editorial department, Dr. Seguin discusses the present aspect of the question of tetanoid paraplegia, an affection characterized by impairment of the functions of the lower extremities without loss of power in those parts, a paralysis with rigidity and contractions. This affection was first described by Dr. Seguin, and it is to his credit that his earliest views of the disease appear to be still essentially the true ones, although much has lately been added by the French and Germans.

The articles above given are carefully prepared and clearly written. They will be interesting alike to specialist and general practitioner, with both of whom this periodical deserves to become popular. The journal is elegantly printed on fine, heavy paper, and presents a very attractive appearance.

DEATH OF JOHN HUGH MCQUILLEN, M.D., OF PHILADELPHIA.—Dr. John Hugh McQuillen, the Dean of the Faculty of the Philadelphia Dental College, died suddenly in that city on Monday morning, March 3d, of disease of the heart. He was born in Philadelphi on February 12, 1826, and received his early educ tion in the Friends' school. When he reached h majority he began the study of medicine and de tistry, and entered upon the practice of the latter i 1849. In 1852 he received the degree of M.D. fro Jefferson Medical College. In 1857 he accepted th chair of operative dentistry and dental philosophy i the Pennsylvania Dental College, a position which h held until 1862. In 1859 he became editor of the *Den tal Cosmos*, a monthly journal recognized as the o gan of the profession. He contributed original ma ter to each number of the magazine, and his pape attracted marked attention. In 1862 he resigned hi professorship in the Pennsylvania Dental College, an in the following year made application to the Legis lature for a charter for a new dental college, to b styled the Philadelphia Dental College. The enter prise met with much opposition; the charter wa however, granted, and the following fall the colleg was started and lectures begun. Within the space o ten years the institution grew from a local to a cosmo politan school. Dr. McQuillen was Dean of the Fac ulty, and occupied the chair of philosophy. He ha been President of the American Dental Association of the Pennsylvania State Dental Association, and o the Odontographic Society of Pennsylvania.

INDEX MEDICUS.—A monthly classified Record o the Current Medical Literature of the World, compiled under the supervision of Dr. John S. Billings, U.S.A., and Dr. Robert Fletcher, M.R.C.S., England. New York: F. Leypoldt, 37 Park Row. Subscription, $ per annum, Vol. I., No. 1.

A MEDICAL journal is as much a necessity to the physician as the trade and stock list is to the man of business, or daily paper to the gentleman of leisure. He who shuts himself out from news of the day becomes narrow-minded and bigoted. A knowledge of the advances in medical science is to be obtained from the medical journals rather than from systematic practice. It is with pleasure that we notice a new periodical, the Index Medicus, compiled under the supervision of Dr. John S. Billings, U.S.A., and Dr. Robert Fletcher, Librarian of the Surgeon-General's Office, England. The reputation of the editors is a guarantee of the thoroughness of the work. It will be issued monthly, and will record the titles of all new publications in medicine, surgery, and the collateral branches received during the preceding month. These will be classed under sequel headings, and will be followed by the titles of valuable original articles upon the same subject found during the like period in medical journals and transactions of medical societies. At the close of each yearly volume, a double index of authors, and subjects will be added, forming a complete bibliography of medicine for the preceding year. We do not see how any one can afford to be without this journal. It is a necessity, and we bespeak for it a hearty welcome, not only from those who are teachers, but from the busy practitioner everywhere.

UNION IN UNUNITED FRACTURE.—A portion of a dog's bone was recently used in procuring union in a case of ununited fracture reported to the London *Lancet* (Oct. 19th), by Dr. Alexander Patterson.

## BOOKS RECEIVED.

THE NATIONAL DISPENSATORY, by ALFRED STILLÉ, M.D., LL.D., and JOHN M. MAISCH, M.D., PH.D. Phila.: H. C. Lea, 1879. 8vo, pp. 1628.

# Original Communications.

## THE REMEDIAL AND FATAL EFFECTS OF CHLORATE OF POTASSA.

By A. JACOBI, M.D.,

CLINICAL PROFESSOR OF DISEASES OF CHILDREN IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

(Read before the Medical Society of the State of New York, Feb. 5, 1879.)

Chlorate of potassa has been used in chemistry to develop oxygen. This appears to have been a sufficient reason for Simpson to recommend its use in habitual abortion, such as depended upon placentitis and insufficient supply, on the part of the fœtus, with oxygen.

It appears, also, that it is used for disinfecting ulcerations, having been recommended for that purpose for the same reasons. Now it is true that it changes the color of the blood, but the redness produced by it is no more intense than that which follows the mixture of blood with other alkalies.

It is further true that warm pus will reduce chlorate of potassa, but the same may be found to be true of other epithelial cells.

But many years ago Isambert and Hirne found chlorate of potassa eliminated without any change, and in large quantities, even as much as ninety-five or ninety-nine per cent. of the amount administered, in the various secretions of the body; that is, in the urine, the saliva, the tears, the perspiration, the bile, and now and then even in the milk; no oxygen was developed at all. In the mucous membrane of the respiratory organs it has also been found by Laborde. Thus, while the theory of Simpson was long ago given up, and while it was found that other alkalies would act just as well, and even better in cases of chronic placentitis and habitual abortion, it is just as true that chlorate of potassa holds a higher rank as a remedy in the treatment of certain not unimportant morbid affections.

Its principal value consists in its effect upon catarrhal and follicular stomatitis; further, in mercurial stomatitis, the former being a frequent and the latter a rare disease in infancy and childhood.

In the adult we have many opportunities to administer chlorate of potassa for the purpose of either relieving or preventing mercurial stomatitis. Infants and children, however, bear the use of mercurial preparations a great deal better than adults, at least as far as the local effect upon the cavity of the mouth is concerned. Infants show the local effect of mercury but very rarely, and even children two or three years of age will take mercury for some time before the slightest appreciable symptoms make their appearance upon the gums; even the external use of the oleate of mercury affects their gums but slowly. Thus, while there appears to be no necessity for the use of chlorate of potassa in these cases, still it is desirable not to neglect, at least, its local application whenever mercury is to be given for a certain period.

The other forms of stomatitis do not require nor indicate the use of chlorate of potassa to the same degree as the two forms above mentioned. For instance, the infectious stomatitis of the new-born and young infants, the so-called thrush or sprue, will, it is true, do well under the use of chlorate of potassa, but it will do well also, and almost as well, under the use of water only, or of salt and water, and still better under the local application of a solution of borax, (without sugar, or syrup, or honey), which destroys parasitic fungi more rapidly.

Diphtheritic angina is one of the forms of stomatitis and pharyngitis in which chlorate of potassa has been used extensively, but we shall find that it is not indicated, though on the same principles, to the same degree as in the other forms. It has also been used in catarrhal forms of ozæna, either by means of injections or other local applications. Further, it has been used in the treatment of toothache dependent upon caries.

In all of these cases I should recommend that it be given in plain solution in water, with no addition whatsoever, except, perhaps, glycerine. But not only the upper portion of the alimentary canal has been found, or believed to be benefited by the administration of chlorate of potassa, but in the opinion of a small number of authors, its use is indicated in catarrh of the intestinal tract. Bonfigli has even gone further. He recommends chlorate of potassa as a reliable remedy in the treatment of diarrhœa of infants depending upon vascular paralysis. He believes that he has seen favorable effects follow the administration of the remedy continued for one single day. He asserts that he has found improvement after its administration, relapse when the remedy was discontinued, and improvement again when the administration was renewed. He insists upon the use of large doses whenever there is intense depression of the general nervous system; for he assumes in those cases that fatty and amyloid degeneration of the walls of the blood-vessels, or extravasations and ulcerations of the walls of the intestines, have made their appearance. I have referred to his statements so fully in order to give at least one of the millions of instances in which the individual judgment is biassed, and medical progress is liable to be thwarted by enthusiasm, not complicated with reason. Even the mucous membrane of the genito-urinary tract has been believed to be favorably influenced by chlorate of potassa. Edlefsen administers the remedy both internally and externally in cases of catarrh of the bladder, and in large doses.

He believes that he has seen favorable re ults, and insists upon the innocuousness of the remedy which, according to him, is proved by a large experience. I may add, at once, that my own experience in the administration of chlorate of potassa in vesical catarrh has given no favorable results whatsoever; and although taking Edlefsen's results as facts, there are certainly other facts which seem to contraindicate the use of chlorate of potassa in just such cases.

My own position in relation to chlorate of potassa, when given in catarrhal and follicular stomatitis, I have stated above. In regard to diphtheria, I can give it in a few words (as I have referred to the same subject on former occasions, and particularly in my contributions to the pathology and treatment of diphtheria). It is this: that chlorate of potassa is a valuable remedy in diphtheria, but that it is not *the* remedy for diphtheria. There are very few cases of diphtheria which do not exhibit larger surfaces of either pharyngitis or stomatitis than of diphtheritic exudation. There are also a number of cases of stomatitis and pharyngitis, during every epidemic of diphtheria, which must be referred to the epidemic, perhaps as introductory stages, but which still do not show the characteristic symptoms of the disease.

When, in 1860, I wrote my first paper upon diphtheria, I based it upon two hundred genuine cases, and at the same time enumerated one hundred and

eighty-five cases of pharyngitis, which I considered to be brought on by epidemic influences, but which, the membrane being absent, could not be classified as *bona fide* cases of diphtheria.

Such cases of pharyngitis and stomatitis, no matter whether under the influence of an epidemic or not, furnish an indication for the use of chlorate of potassa. They will get well with this treatment alone. The cases of genuine diphtheria complicated with a great deal of stomatitis and pharyngitis also indicate the use of chlorate of potassa; not as a remedy for the diphtheria, but as a remedy for the accompanying catarrhal condition in the neighborhood of the diphtheritic exudation. For, it is a fact that, as long as the parts in the neighborhood of the diphtheritic exudation are in a healthy condition, there is but little danger of the disease spreading over the surface. Whenever the neighboring surface is affected with catarrh, or inflammation, or injury, so that the epithelium is loose or removed, the diphtheritic exudation will spread within a very short time. Thus chlorate of potassa or soda, which is more soluble and more easily digested than the former, will act as a preventive rather than as a curative remedy. Therefore it is, that common cases of pharyngeal diphtheria will recover under this treatment alone, nothing else being required.

The cases of diphtheria in which the exudation is limited to the tonsils are by no means dangerous, for the lymphatic communication between the tonsils and the rest of the body is none at all, or very trifling. Thus no absorption into the circulation can take place from a tonsillar diphtheritis alone. The surrounding stomatitis and pharyngitis will be favorably influenced by the administration of chlorate of potassa or soda, and thus the entire disease will run a favorable course, inasmuch as the tonsillar exudation will be removed within three or six days. The surrounding portions of the mouth and fauces in the meanwhile being put into a tolerably healthy condition, the danger is passed. These are the cases which have given the reputation to chlorate of potassa as a remedy for diphtheria.

The dose of chlorate of potassa for a child two or three years old should not be larger than half a drachm (2 grammes) in twenty-four hours. A baby of one year or less should not take more than one scruple (1¼ grammes) a day. The dose for an adult should not be more than a drachm and one-half, or at most two drachms (6 or 8 grammes), in the course of the twenty-four hours.

The effect of the chlorate of potassa is partly a general and partly a local one.

The general effect might be obtained by the use of occasional larger doses; but it is better not to strain the eliminating powers of the system. The local effect, however, cannot be obtained with occasional doses, but only by doses so frequently repeated that the remedy is in almost constant contact with the diseased surface. Thus the doses, to produce the local effect, should be very small and frequently administered. It is better that the daily quantity of twenty grains should be given in fifty or sixty doses than in eight or ten; that is, the solution should be weak, and a drachm or half a drachm of such solution can be given every hour or every half-hour, or every fifteen or twenty minutes, care being taken that no water is given soon after the remedy has been administered, for obvious reasons.

I have referred to these facts with so much emphasis because of late an attempt has been made to introduce chlorate of potassa as the main remedy in bad cases of diphtheria—and, what is worse, in large doses.

It is Seeligmüller who has especially recommended chlorate of potassa for that purpose in saturated solution. Sachse also looks upon a saturated solution of chlorate of potassa as a panacea, inasmuch as he did not lose a case out of one hundred, except those, as he says, "which were hopeless at the beginning." A young colleague in our State also recommends chlorate of potassa (six drachms daily) as his sheet anchor in diphtheria (Louis Weigert, M.D., *Hospit. Gaz.*, Jan. 16, 1879).

Seeligmüller administers a solution of one to twenty. Of this he gives children of three years and over a tablespoonful every hour at first — doses which amount to half an ounce in twenty-four hours; afterward every two or three hours. To children a little younger he gives half a tablespoonful, and continues the treatment day and night. He insists upon the necessity of not adding any syrup to the solution, and also of not allowing the patient to drink within a short time after the administration of the remedy. In his opinion the internal treatment suffices; still he advises that the solution should be used as a wash, a gargle, and also should be snuffed.

He says that the bad odor and fever, under that treatment, disappear within a very short time. The number of cases which he first reported as treated successfully in this manner was fifteen. At the same time he gave milk, broth, egg, and a small quantity of Tokay wine. These cases were published a number of years ago. Since that time he has modified his opinion to a certain extent. He says that chlorate of potassa may prove injurious, because of the possibility of the potassa acting *upon the heart;* and that, when it does, the heart's action becomes either more or less frequent, and may be intermittent. On the other hand he directs attention to the fact that diphtheria itself will act upon the heart in a similar way; and, as soon as such symptoms occur, quinine, coffee, and wine are recommended.

Digestion may also be interfered with by chlorate of potassa, inasmuch as when acute gastric catarrh is present the remedy is not well tolerated. In such cases smaller quantities must be given, or the drug must be discontinued altogether. In consequence of finding these drawbacks, he insists upon the above method of administering the remedy only during the first twenty-four or thirty-six hours. This modification he began particularly after a few of his patients *died with a sensation of burning and soreness.*

I have reported his practice so extensively, because I mean to raise my voice against it for the reason of its dangerousness.

As early as 1860, I advised strongly against the use of large doses of chlorate of potassa, but the translation of the paper I then published in the *American Medical Times*, which was printed in the *Journal fuer Kinderkrankheiten*, in 1861, was so defective, that I am not astonished at my warnings having been overlooked on the European side of the Atlantic. The treatment is dangerous, because of the largeness of the doses of the chlorate of potassa given.

Seeligmüller himself reports a case of a boy six years of age, who died within a very short time under the chlorate of potassa treatment, the main symptoms being copious greenish discharges, obstinate vomiting, and collapse. The kidneys were not examined after death, but the symptoms and the resemblance of these cases to a number of others of equal nature and result, prove them to be cases of nephritis depending upon over-doses of chlorate of potassa.

Lacombe had under observation a man who took one ounce of chlorate of potassa, intending to take an ounce of the sulphate of magnesia. The man died in convulsions, after having purged very freely, and the cause of death was regarded as *excessive diarrhœa*. The probability is that it was a case of nephritis.

Isambert, in his first reports upon the effects of chlorate of potassa, published more than twenty years ago, found among its effects increased diuresis, a sensation of heaviness and dragging in the lumbar region, such as is found after the administration of large doses of nitrate of potassa.

Ferris reports a case of death from cyanosis, with absence of pulse, within a period of thirty-six hours after taking a tablespoonful of the chlorate of potassa. He found the ventricles of the heart empty and contracted, while the auricles were distended with dark blood. The kidneys were not examined.

When I myself, nearly twenty years ago, took single half-ounce and six-drachm doses of chlorate of potassa, I had a sensation of heaviness and dragging in the lumbar region, and increased renal secretion. I did not examine for albumen.

The case of Dr. Fountain, of Davenport, Iowa, occurring at the very same time, is well known. He experimented upon himself, taking over an ounce of the chlorate of potassa, and died within four days of nephritis.

A case of death from chlorate of potassa, occurring in the practice of Dr. Krackowizer, I reported some years ago. It was that of a young lady who was told to use a solution of one ounce of chlorate of potassa as a mouth-wash and gargle. Instead of that, she swallowed the whole of the solution, and within three days died of nephritis.

I have also, before this, referred to one of my own cases; it was that of a man of thirty-odd years, who was told to use internally ten drachms of the chlorate of soda, within six days. Instead of that he took the entire quantity within six hours. Within twenty-four hours he suffered from diffuse nephritis. What little urine he passed was smoke colored, and afterward black. It contained a large percentage of albumen, blood, hyaline and granular casts. Then there was complete suppression. There was vomiting and diarrhœa, headaches, and coma. He died upon the fourth day, and the post-mortem examination exhibited acute diffuse nephritis.

Dr. J. Lewis Smith, in a meeting in which the above statements of mine were referred to, reports a case of a child three or four years of age (See Medical Record, p. 397, 1878), who took three drachms of the chlorate of potassa in one day. After that only a few drops of bloody urine were discharged, and the child died at the end of twenty-four hours.

In the same number of the same journal Dr. Hall reports a case of a child under one year of age, who took one drachm of the chlorate of potassa in a single night, and with exactly the same symptoms and the same results.

Conrad Küster (D. Zeitsch. f. prakt. Med., 1877, No. 33), for no other purpose but to prove the essential identity of punctated, maculated, membranaceous, croupous, and nephritic forms of diphtheria—similarly to most writers since Bard, Bretonneau, and myself amongst many—reports the following cases:

A young woman of twenty, vigorous and blooming. Mild angina. Small, white specks on tonsils. Feels pretty good. A strong solution of chlorate of potassa for gargling and internal administration. No doses, however, reported. The doctor found her dying at daybreak the following morning. Relatives said that vomiting and diarrhœa commenced in the evening, but that they all slept and were awakened in the morning by the laborious breathing of the patient. No post-mortem examination was made; urine was not obtained. There was no dropsy, but the skin exhibited a peculiar husky hue.

A man of thirty, in vigorous health. Trifling maculated diphtheritic angina. Strong solution of chlorate of potassa as a gargle and internally lime-water, besides. The tonsils cleared rapidly, but some malaise all the time. Urine albuminous. The doctor learned that the urine was peculiarly black on the third or fourth day. Gradual improvement, but urine albuminous a year and a half after.

A boy of three years, in good health; very mild, punctated, diphtheritic angina. Two other children had diphtheria seriously half a year previously, one of which died of laryngeal diphtheria. Gargle and administration of a strong solution of chlorate of potassa. Next day the doctor was notified the child was dying, and had passed black urine. So it was. The urine *was* black, a little greenish hue, moderately albuminous, the surface bluish white, the child dying. A good deal of vomiting. No dropsy. No post-mortem.

A girl of four, also robust and vigorous. Mild angina, some trifling whitish marks, hardly visible in the tonsils. Gargles and administrations of chlorate of potassa in strong solution. Appears nearly well, both locally and generally, within two days. But in the afternoon very suddenly vomiting, yawning, apathy, bluish-white complexion, accelerated compressible pulse, skin cool. In the evening some urine, black with greenish hue, albuminous, contained hematine. On the following days the color became more normal, and albumen less. On the fifth day the danger was over, but the pulse remained frequent a long time. No dropsy. A slight return of albumen on the sixteenth day.

Now Dr. Küster claims all of these cases as acute nephritis, and adds verbatim: "There is here a peculiar resemblance to renal irritation in carbolic acid poisoning. One is reminded of a medicinal poisoning, and would presume its presence if *carbolic acid had* been used for external application. In my cases the substance irritating the kidneys could be *none but the chlorate of potassa. However, as this effect of chlorate of potassa has not been observed*, as nephritis in diphtheria is, besides, nothing unusual, the latter must be claimed as the cause of the accidents."

Küster's facts are correct, his theory is not. His cases were mild, all of them tonsillar, no general symptoms, no adenitis; in fact there is no, or very little, lymph-vessel communication between the tonsils and the rest of the body. Two of his four cases terminated fatally in a very short time; two barely escaped. The same symptoms, the same nature of the disease in all. The cases seemed to the author like so many of poisoning by medication, *and so they were*. Unfortunately the author, otherwise known as careful, earnest, and conscientious, reports no doses, but in every case he speaks of *strong* solutions of chlorate of potassa, which appear to have been used rather indifferently or indiscriminately. If you have followed my remarks, and compare my own cases with his, and if I remember how deeply impressed many of my professional brethren were when I first mentioned my experience in public and in print, all of us will not hesitate to look upon his cases as such, of acute nephritis brought on by excessive doses of chlorate of potassa.

After all the previous remarks, the practical point I

wish to make is this, that chlorate of potassa is by no means an indifferent remedy; that it can prove, and has proved dangerous and fatal in a number of instances, producing one of the most dangerous diseases —acute nephritis. We are not very careful in regard to the doses of alkalies in general, but in regard to the chlorate we ought to be very particular. The more so as the drug, from its well-known either authentic or alleged effects, has risen, or descended, into the ranks of popular medicines. Chlorate of potassa or soda is used perhaps more than any other drug I am aware of. Its doses in domestic administration are not weighed but estimated; it is not bought by the drachm or ounce, but the ten or twenty cents worth. It is given indiscriminately to young and old, for days or even weeks, for the public are more given to *taking hold* of a remedy than to *heed warnings*, and the profession are no better in many respects. Besides, it has appeared to me, acute nephritis is a much more frequent occurrence now than it was twenty years ago. Chronic nephritis is certainly met with much oftener than formerly, and I know that many a death certificate ought to bear the inscription of nephritis instead of meningitis, convulsions, or acute pulmonary œdema. Why is that? Partly, assuredly, because for twenty years past diphtheria has given rise to numerous cases of nephritis; partly, however, I am afraid, because of the recklessness with which chlorate of potassa has become a popular remedy. Having often met medical men unaware of the possible dangers connected with the indiscriminate use of chlorate of potassa or soda, I thought this Society would excuse my bringing up this subject. It may appear trifling, but you who deal with individual lives, which often are lost or recovered by trifles, will understand that I was anxious to impress the dangers of an important and popular drug on my colleagues, and through them on the public at large.

## CONCLUSIONS FROM THE STUDY OF ONE HUNDRED AND TWENTY-FIVE CASES OF WRITER'S CRAMP AND ALLIED AFFECTIONS.

By GEORGE M. BEARD, M.D.,

NEW YORK.

(Read before the Medical Society of the State of New York, Feb. 5, 1879.)

During the past few years I have been specially investigating the disease known as *writer's cramp* and affections allied to it, as *telegrapher's cramp*, *musician's cramp*, and the *cramp of sewing-women*, and others engaged in occupations that draw so severely and exclusively on certain muscles as to induce weakness of those muscles and of the nerves that supply them.

These investigations have been pursued in various ways—by the study of cases in my practice; by conversation and correspondence with physicians from all parts of the country and other countries; by consultation with physicians in regard to cases, and by circulars of inquiry that have been noticed in various journals and brought to the attention both of physicians and the sufferers from the disease. The inquiry has extended to England, Germany, and Australia.

The conclusions at which I have arrived, stated in the most condensed manner possible, are as follows. I present the results without argument or discussion, reserving the details for a subsequent occasion, and shall here confine myself to those facts that are more or less novel and unfamiliar, and of the greatest scientific and practical interest.

The main results can be stated in these eight propositions:

*First.— What is called the cramp is but one of a large number of the symptoms of this disease, and no two cases are precisely alike.*

There are at least fifteen or twenty other symptoms of this disease. The recognition of these symptoms, especially in the early and premonitory stage, is of the highest moment, for the reason that in the early stage the disease is curable.

The cramp in those cases, where it appears, is oftentimes one of the later symptoms, and bears much the same relation to the disease that the symptoms of the ataxia gait bears to the disease locomotor ataxy. *In some cases there is no* cramp from *first to last*, and in all cases *the cramp is preceded or accompanied* by other *symptoms.*

The list of symptoms of writer's cramp is as follows: 1, *Fatigue, exhaustion;* 2, *dull, aching pain;* 3, *nervous, irritable feeling; general nervousness;* 4, *trembling, unsteadiness;* 5, *cramp, spasm, jumping, twitching, rigidity, contraction* of muscles (in some cases the pen is involuntarily hurled at a great distance, as across the room); 6, *stiffness* and *tightness;* 7, *powerlessness*, helplessness; 8, *numbness*, areas of anæsthesia, *tingling;* 9, *neuralgia;* 10, *burning*, stinging, dancing, prickly feeling; 11, *soreness;* 12, *throbbing* and *swelling* feeling; 13, *thrilling*, running, *electric* sensations; 14, *tightly-bound* feeling of wrist; 15, *coldness;* 16, *abnormal sensitiveness* to *touch* or *cold*, or *mental* influences; 17, disinclination to write; 18, *slowness* in writing; 19, *itching;* 20, *perspiration;* 21, temporary aphasia; 22, dryness of the joints; 23, swelling of the wrist and hand; 24, *actual paralysis;* 25, abnormal grasp of the fingers on the pen-holder or pencil—a very common symptom; tendency of the fingers, especially the middle one, to slip out of their places on the pen-holder, creating a desire by the sufferer to moisten them to prevent slipping; bearing down on the paper with unnatural or unusual pressure.

Many of the above symptoms are not confined to the hand, but extend to the forearm, arm, shoulder, neck, to the opposite arm, and over the whole body. It is clear, therefore, that the term writer's cramp is the worst possible misnomer, and that the disease has been most imperfectly understood in medical literature. It is wise, however, to retain the term both in scientific and popular circles, for in the prospective state of our knowledge no term capable of including precisely and exhaustively all the phenomena of the disease can be suggested. When any disease is designated by a term that is at once short, familiar, and easily retained, it is not well, as a rule, to attempt to displace it. To name diseases from prominent and special symptoms, and real or suspected factors in their causation is, during certain stages of medical progress, both natural and inevitable, as is illustrated by hay-fever, epilepsy, hysteria, insanity, neuralgia; and to attempt to substitute terms based on imperfect and changing knowledge of pathology, is to heighten the confusion that we would remove.

*Secondly.—Also in the other forms of professional cramp, as that of telegraphers, musicians* (violinists, organists, pianists, harpists), *sewing-women, painters, artists, dancers, hammer-palsy, and so forth, the cramp is but one of a number of symptoms, and by no means always the most important symptom; and, as in writer's cramp, there is frequently no cramp at all from the beginning to the end of the disease.*

There is no *one* symptom of the disease that can be said to be diagnostic. It is by taking a survey of *all* these symptoms, and by studying them in their relation to each other and to the history of the case that we are able to make out the diagnosis of writer's cramp, or of any of these allied disorders. This rule applies to the entire nervous system; there is not a disease known to neurology that can always be diagnosticated by any single symptom; all the familiar disorders of the brain, of the spinal cord, or of the peripheral nerves are studied not through isolated phenomena, but through groups of phenomena, acting and reacting on each other; pathognomonic symptoms belong to lecture-rooms and text-books, not to practical experience.* An analogous disease, that has not been described, is the *counting-money cramp*, from which a lady-clerk in the Treasury Department at Washington once suffered; it is caused by excessive and restricted use of the fingers in handling bills.

*Thirdly.—This disease is primarily a peripheral and local disease of the nerves and muscles; secondarily and rarely it becomes central and general, or it may result from various central lesions; and it may affect any point between the extreme periphery and the centre.*

This view of the pathology is a compromise between the old view that it was central, and the theory of Poore, of London, that it is purely peripheral.

No two cases are precisely alike in their pathology, but there is no question that in some exceptional cases the disease extends to the centres. That it affects the left hand as well as the right is no proof that the disease is central; it simply develops to the left hand when that hand is used, for the same reason that it affects the right hand.

The theory that writer's cramp is a result of lesion or disturbance of special co-ordinating centres in the brain is not sustained by a single properly-understood fact; on every point it fails to account for and harmonize the phenomena. So far, my own conclusions are in entire accord with those of Dr. Poore, of London, who has investigated this subject most intelligently and successfully.†

In truth, the detailed pathology of writer's cramp is not simple, but complex; in some cases there is neuritis which may affect a single nerve-branch or several nerve-branches, and may be restricted to the fingers and hand, or extend up the forearm and arm; then the muscles may be merely exhausted—chronically fatigued—or with a tendency to spasm and contracture. The worst phase of the disease that I ever saw was in 1874, with Dr. Brodie, of Detroit; in that case the arm was drawn over to the back, and held firmly there by the contracted muscles; the patient was unable to use his hand for any purpose, and also suffered great pain.

In some cases the disease, or rather the tendency to the disease, is hereditary—two and three cases having been known in a single family.

*Fourthly.—This disease occurs mostly in those who are of strong, frequently of very strong, constitutions, and is quite rare in the nervous and delicate; and when it does occur in those who are nervous, is easier relieved and cured than when it occurs in the strong.*

This fact is not peculiar to writer's cramp, but applies to other nervous diseases, as impotence, muscular atrophy, and ataxy. I see every day cases of nervous exhaustion (neurasthenia) in its various forms, and quite rarely do I see writer's cramp in them; and when they do have this disease, it is mild and curable. I have successfully treated a number of these cases.

*Fifthly.—This disease is far less likely to occur in those who do original work, as authors, journalists, composers, than in those who do routine work, as clerks, book-keepers, copyists, agents, and so forth.*

The reason is clear. Original thinkers must take time for thinking as they write, and thus they rest the nerves and muscles of the hand; while routinists, having little or no thinking to do, write on constantly and uninterruptedly, oftentimes at the extreme of their speed.

In some cases an attack of writer's cramp has followed a *single* task of long copying. In one of my cases—an authoress—there had never been any sign of the disease until she performed a task of routine work. Of my cases eight were physicians, eight were lawyers, five were clergymen, and the remainder were clerks, book-keepers, agents, copyists, and merchants.

Men who write bad, scrawly, illegible hands never have writer's cramp; it is the penalty for writing plainly and carefully. Like prevents like, and those who always write as though they had writer's cramp never have it.

*Sixthly.—This disease, like all nervous diseases in this country, diminishes in frequency as we go South.*

In the Gulf States writer's cramp and maladies allied to it are very rare. The same is true of hay-fever, which is a type of nervous diseases; and, indeed, of the whole family of functional nervous maladies, such as sick-headache and neurasthenia, or nervous exhaustion in all its manifestations.

In investigating this subject I have corresponded and conferred with physicians all through the South. Dr. Bryce, Superintendent of the Alabama Insane Asylum, Tuscaloosa, whose opportunities for observation have been very large, has written me a very interesting letter on this question.

*Seventhly.—Writer's cramp is no longer an incurable disease.*

In the early and forming stage, especially, it responds to treatment quickly, and in many cases permanently. During the stage of exhaustion, fatigue, and pain, with the other symptoms of numbness, neuralgia, irritability, trembling, powerlessness, soreness, coldness, stiffness, and so forth, this disease can be treated as satisfactorily as almost any other form of nervous disorder; and, even when cramp or spasms of the muscles have appeared, it may be entirely cured.

In the later stages, after the symptoms have existed for years, the malady may become absolutely hopeless, even though the patient abandon his occupation. I have seen cases that have been afflicted for over a quarter of a century.

One striking case of this kind I had opportunity to see through the courtesy of Dr. W. C. Wey, of Elmira, N. Y. Both hands were affected, and the numbness and powerlessness were so marked that sometimes a newspaper that he was reading would drop to the floor. The whole body seemed, indeed, to have been disturbed, and he had been obliged to give up his position as cashier of a bank.

In all these cases, the prognosis is better in nervous and delicate patients than in those who are phlegmatic and strong.

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* Ataxy, for example, was formerly diagnosticated by inability to stand with closed eyes, by the ataxic gait, and by the electric pains; and more recently an unsuccessful attempt has been made to prove that the absence of the tendon-reflex is a sure sign of that disease. There was no need of experiment to disprove this claim; the physiology and pathology of the nervous system are now in a condition, where we are able to prove deductively—without examination—that all such claims of pathognomonic symptoms, however reliable they may be as aids and accessories, are illogical and unscientific.

† Transactions of the London Medico-Chirurgical Society, vol. lxi.

*Eighthly and lastly.—The treatment of writer's cramp and affections allied to it consists:*

1. In the use of electricity locally applied. Both galvanic and faradic currents may be used—preferably the former. In some cases galvanization of the spine and neck, and what are called spinal-cord nerve-currents, are indicated. Strong galvanic currents, with metallic electrodes, I have used with advantage in some cases where mild currents seemed to do no good. The wire brush with the faradic current I often use, and in some cases electro-puncture.

The relief of pain and fatigue that follows these electrical applications is immediate and uniform, and most grateful to the sufferer; and this temporary effect can be obtained even in the worst cases. I have not yet been able to demonstrate any very marked advantage from the rhythmical movements of the muscles in connection with the electrical applications.

2. Hypodermic injections of atropine, strychnia, duboisia, Fowler's solution, and other tonics, narcotics, and sedatives. These remedies need often to be gradually pushed to their physiological effects. Electricity and hypodermic injections combined have made an epoch in the treatment of writer's cramp. The evil effects of hypodermic injection are guarded against by care in preparing the solutions, by dilution of irritating substances, by moderately deep puncture, and by substituting other treatment in those cases where, from any constitutional tendency, suppuration is easily excited.

3. The internal use of calabar-bean, ergotine, iodoform, and in some cases of nerve-food, as oil and fats. It is useless, in the majority of severe cases, to dally with mild remedies or ordinary tonics.

4. *Massage*, or systematized kneading and manipulation of the muscles, with friction, and pinching, and pounding of the skin, and passive movements of the joints, large and small.

Dr. Douglass Graham, of Boston, has used this method with very encouraging success. I now employ it in all my cases. The whole arm should be treated.

5. The use of dry heat and dry cold, by rubber bags containing hot water or ice. These may be used alternately.

6. The actual cautery and very small blisters to the upper portion of the spine, or along the course of the affected nerves and muscles.

Rest alone, even long abstinence for many months from writing, will not cure writer's cramp, as has been proved by the experience of many cases. The best results I have ever had have been made with cases that kept right along with their occupation—although avoiding excessive work—with the aid of mechanical appliances.

Among the hygienic devices for the relief and cure of writer's cramp are the following:

1. The device for holding the pen—a ring-penholder—so as to relieve the thumb and fingers. An excellent arrangement of this kind has been perfected by one of my patients. By this contrivance the thumb is allowed perfect rest, and the index-finger and second finger are united by rings so as to make practically one finger, which is attached to the penholder. The over-use of the muscles most liable to be involved in writer's cramp is thus avoided. The gentleman who perfected this *ring-penholder* was himself substantially cured of a bad form of writer's cramp by its use in connection with electrical and other treatment, as above described. He is a bookkeeper, and can now follow steadily his occupation, although troubled at times with symptoms of weariness. He kept right on with his occupation during treatment.

2. The type-writer. This instrument is destined to be of great practical service to writer's-cramp sufferers, as well as to those who, though not having the cramp, are made generally nervous and locally tired by the mechanical labor of writing. During the past year I have made many experiments with this instrument, and studied carefully its relations to the nervous system, in order to determine these points. Unfortunately, book-keepers and those who write very short notes or messages and signatures cannot profit by the type-writer; but for those who write continuously the instrument is an almost perfect relief. After some instruction a reasonable degree of skill in its practical use can be obtained during the play-hours of two or three months.

Thurber's kaligraph, now almost forgotten, was an ingenious contrivance for writer's-cramp sufferers; but it is now superseded by the two inventions just noticed.

3. The use of large pen-holders, so that the muscles may be less restricted; fastening a piece of sponge to the penholder, so as to relieve the pressure of the fingers. One of my correspondents writes me that he used this device for a year.

4. Holding the pen between the different fingers, thus relieving the thumb and index-finger. One of my medical friends finds great relief by this device.

5. The use of quills and very flexible pens, and pens with very broad points, so as to run easily like quills. Some pens have been sent to me from Germany that are made with this special object in view. The use of the lead-pencil is also a great relief. The mica pen and the Esterbrook stub-pen are worthy of trial.

6. Frequently changing the pen and the penholder and style of pen, so as to change the mode of action of the muscle. Dipping the pen for ink is usually regarded as an evil, but it doubtless saves many of us from writer's cramp.

7. Changing the position in writing, as from sitting to standing, or holding the paper in the lap. These methods of relief are to be commended, especially for those who are just beginning to have the symptoms of the disease, who are yet in the stage of exhaustion. It is a mistake to always try to point the pen toward the right shoulder. When utterly tired out, it is well to stop entirely.

8. The avoidance of faulty and painful methods of writing, and the study of easy, natural methods. A person who writes a cramped and stiff style, no matter though it be a legible one, is a fair subject for attack, especially if writing occupies most of the time. This factor is of great importance. An eminent author and journalist is accustomed to put his pen in the penholder at an angle of several degrees backward, and thus is able, as he tells me, to write consecutively over forty words a minute.

9. Writing with the left hand. Out of 18 cases that tried this plan, 3 failed utterly, 6 were partially successful, and 9 were completely successful. In the 6 partially successful cases the disease either appeared in the left hand, or after a time showed a tendency to appear there. At the beginning of the disease, educating the left hand may be of itself sufficient for a cure.

10. The use of various gymnastic and athletic exercises, as rowing, paddling, and so forth. In some cases the sufferers are unable to do many other kinds of work; carrying bundles or turning door-knobs hurts them just as writing does; but such cases are exceptions.

*Speed of Handwriting.*—In the study of this subject, I have made many experiments with a view to determine the average speed of handwriting. I find that between twenty-five and fifty words are written in a minute by those who are accustomed to write, the average being perhaps about thirty words when no time is lost in thinking or dipping the pen.

The method of experimenting that I have adopted is, to have the subject experimented on write something with which he is quite familiar—words of all lengths—for one minute. Practically, no one writes steadily as fast as these experiments would indicate, for, after a few moments of writing at the very top of speed, there will come to the majority a weariness; then the delay of composition also interferes.

These experiments were made with lawyers, physicians, clerks, book-keepers, scientists, and men of letters. Mr. T. A. Edison, the inventor, is also an expert in handwriting, and I have made with him a number of experiments in order to test the rate of speed of different varieties of penmanship. When he writes slowly and with care—from fifteen to twenty-five words a minute—Mr. Edison's handwriting is phenomenally clear and beautiful, resembling copperplate printing; not in a flowing, but in a cramped hand, the letters being often separated as in print. When he rises to forty words a minute, the writing is still more cramped and less beautiful, though yet legible; with forty-nine words a minute, his writing is quite illegible.

I find that journalists write with a lead-pencil—which, as a class, they generally use—from forty to fifty words a minute. Experts on the type-writer, according to my experiments, can print for a short time at dictation from seventy-five to one hundred words a minute; but in practice, very few of those who use the instrument put down on the average more than half that number.

A number of years ago a man attempted on a wager to make with a pen an enormous number of up and down strokes—a million, I believe, within a month or less time. Swelling of the hand and wrist, with severe pain, so annoyed the experimenter that it was necessary for some one to stand near him and pour on cold water and apply various lotions. In this cramped and continuous movement and tension of muscles is found the philosophy of all these forms of professional cramp. I have made some experiments with myself in order to ascertain just how many single disconnected up and down strokes I could make with a pen; and find that from 175 to 200 a minute is about the limit, and very soon the hand becomes wearied. A friend of mine, connected with the Surrogate's office in this city, tells me that the clerks in that department sometimes complain of swelling of the wrist from over-writing.

Mr. Edison, whose amazingly fertile mind is constantly making original suggestions even in departments quite remote from his own, showed me not long ago the following fundamental experiment. A small rod of steel or iron, or other hard substance, about one-third of an inch in diameter, is held very firmly between the thumb and forefinger of the left hand; very soon there comes a pain in the adductor of the thumb, which may be unbearable. This position is a familiar one to manufacturers of electrical apparatus, since it represents their method of winding wire on bobbins.

*Telegrapher's and Musician's Cramp.*—The above practical conclusions in regard to treatment apply to the other forms of professional cramp, as that of telegraphers and musicians—violinists, organists, pianists, and harpists; also to the cramp of artists, painters, engravers, and sewing women.

Telegraphic operators have two forms of cramp—the ordinary writer's cramp, from receiving and writing out messages; and true telegrapher's cramp, from striking the index-finger on the sending instrument. The malady is quite a common one among telegraphers; and an attempt has been made to reduce its frequency by the use of a rubber cap on the button on which the finger presses in sending. This device is, I understand, but partially successful.

Musicians, when afflicted with cramp, have the same symptoms as writers, and are likely to suffer in both hands, although one hand may be affected quite differently from the other. In one case that I saw through the courtesy of Dr. Webber, the right hand, on beginning to play, showed contraction of the muscles of the thumb and index-finger, with a tendency upward; while in the left hand, at the same time, the second and third finger were firmly flexed into the hollow of the hand, so that they could be opened only with great difficulty. In a case now under my care, the right hand is affected in precisely the same way, while in the left hand the little finger only is disturbed. This form of trouble often comes from stretching the hand in playing octaves.

In another case the third finger of the right hand is raised involuntarily while playing; and in an organist now under my care there is simply stiffness and pain in the interossei between the third and little finger, and anæsthesia of the back of the hand. In the case of a very eminent violinist the muscles of the left arm and forearm, and also the fingers, were so weak and exhausted from long holding the violin in position, that he had to abandon his profession.

I have succeeded in curing a long-standing case of pianist's cramp, where the symptoms seemed to depend on a neuritis, excited originally by exposure to cold in bathing, and made worse by severe practice at the piano. In this case there had been great uneasiness, and even severe pain after playing, and he had abandoned his profession. He is now able to play several consecutive hours without fatigue.

## THE ECCENTRIC GENUCLAST.

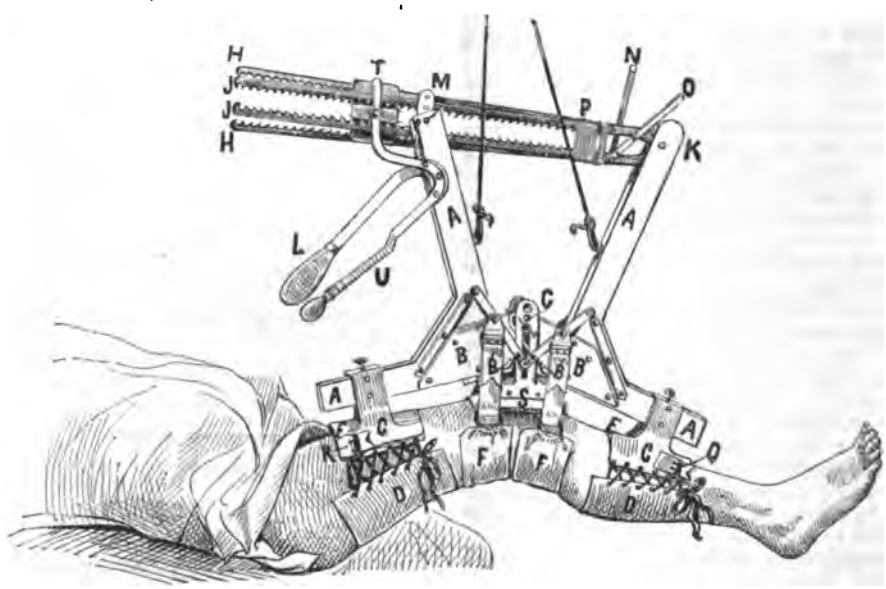
By C. FAYETTE TAYLOR, M.D.,
NEW YORK.

Whatever practical value the "new osteoclast"* may ultimately prove to possess, in affording a more simple solution of certain questions growing out of distortions after unarrested coxitis, or in shortening after fractures instead of osteotomy, its employment must, necessarily, be somewhat restricted for the want of appropriate subjects. But it has long been felt that there was a necessity for a practicable genuclast, and that an instrument for reducing flexions, overcoming contractions and breaking up osseous and fibrous adhesions at the knee-joint, if at once simple and adaptable, would be a boon to the profession. We are continually meeting with cases of simple contraction of the hamstring muscles, which, with our present means, can only be reduced after tenotomy, because these muscles are too strong to be overcome, with practicable force; or where the stretching cannot be repeated often enough to accomplish permanent results, without so many annoying difficulties as to

* Exhibited to the New York Academy of Medicine, April 5, 1877, and published in the Medical Record for April 21, 1877, the *new osteoclast* differs from its predecessors in its capability to localize, with certainty, the seat of the fracture which it makes.

amount to a preclusion of the operation, in cases where it is plainly indicated. Again, there are many cases of commencing adhesions between the articulating surfaces, which, it would seem possible to prevent from progressing to anchylosis, if we possessed the means for breaking them up without, at the same time, seriously injuring the joint, in the necessity we have been under of making it the fulcrum of the force applied. So that the surgeon has been obliged to wait for the joint-inflammation to fully subside before operating, thus giving time for the adhesions to become firm and osseous deposits to take place, as well as necessitating the use of much greater force in the operation than would have been required if the same thing could have been done at an earlier stage of the reparative movement, without relighting an inflammation. The crude and unhandy way in which anchylosis at the knee-joint has hitherto been broken down, when anything at all has been attempted, has been enough to deter surgeons from operating as often as it, no doubt, might profitably be done with a well-constructed genuclast.

The want of such an instrument was forcibly impressed on my mind, several years ago, when I was called to a case of flexion at the knee-joints, which




quite a number of eminent gentlemen had attempted to straighten without permanent success. The evident necessity for an instrument for *force brisée* operations on the knee-joint has resulted in the perfected machine which I have called "the eccentric genuclast," and will presently describe. Nothing could demonstrate the absolute necessity for such an instrument better than the case above alluded to. It was that of a lady, about forty-five years old, of a gouty diathesis, and an uncommonly sensitive and hysterical temperament. A slight arthritis in the knees served to excite uncontrollable terror of any movement, which she feared might cause pain, with the effect of keeping her in the sitting position for three or four years, and until the muscles had become stiff and the knee-joints immovable. I can positively assert that there was neither inflammation, swelling, adhesions, nor local tenderness in or about the knees when I saw her, and that the only restriction to the motions was the rigid and inelastic condition of the muscles from inaction. There was extreme hyperæsthesia of an hysterical character, as before said, with dread, but no joint disease adequate alone to produce loss of motion. Twice this lady was etherized, and the legs extended by main force, pressure being applied directly over the joints sufficient to crush them down. Of course, the knees were made the fulcrum of the force applied to overcome the flexor muscles which were shortened and rigid from position. After the limbs were thus straightened out, apparatus was applied to keep them straight. But the articulating surfaces of the joints had been so bruised by the operation that she was in agony until the retaining apparatus was taken off and the knees relieved by bending. After repeating the process on two different occasions, without advantage, the case came into my hands. On listening to a history of the case, it immediately occurred to me that the failure was due to not providing against the necessity of using the knee-joint as the *point d'appui*. To avoid such articular pressure, I used a strong counter-extension hip-splint, and found no serious difficulty in straightening the limbs, and in keeping them straight without pain to the patient. Though extension at the knee-joint was made by the counter-extension hip-splint, it was by no means a perfect machine for the purpose. But it protected the joint from injury while the leg was extended on the thigh, the operation was relatively painless, and thus its use conclusively demonstrated an important principle. I mention this case merely to illustrate this one point. It then occurred to me that, if an hyperæsthetic joint could be extended with impunity in a case where the old methods had been carefully tried and had conspicuously failed, what must be the advantage in joints which had been seriously diseased? In straightening the limbs, in this case, I found that there should be a combined movement under regulation and control of both extension and counter-extension. Carrying out this principle, in other cases which I have practised on since, the result has been the eccentric genuclast, which I will now describe.

The genuclast may be seen applied in the figure. It consists of two pairs of clear, strong, ash bars, one inch and three-quarters square, *A A A A*, each pair

fastened together at right angles by strong mortised joints, which are further strengthened by the steel plates *B B*, which are securely bolted across from one arm to the other. On the lower or horizontal arms are the adjustable flanges *C C*, in the edges of which are holes for lacing the leather bands *D D*, which pass under the limb. To the flanges are also fastened the fixed leather stays, *E E*, which pass over the limb, and on which the instrument rests. *F F* are bands made of flannel, covered with chamois, which pass under the knee, as shown. The two parts are connected by and vibrate on the bolt *G*, which passes through projecting ears of the plates *B B* at a point three inches beyond the edge of the uprights, and as far above the lower angles *B' B'* of the plate. By this arrangement the angles are alternately approximated or carried apart with every vibration on the pivot *G*. From each end of the same bolt T-shaped flanges, *S S*, are projected downwards about two inches below the lower edge of the horizontal arms, and carry a piece of packing rubber which is curved from one to the other over the knee. While the elasticity of the rubber allows the patella to bury itself in it, it yields no more and will bear all necessary force without stretching. This arrangement is intended to prevent bruising the knee. The flange, *S*, is kept in position by the two braces, as shown. At the top of the vertical bars are two pairs of steel rods, *H H* and *J J*; one pair, *H H*, having concentric racks, and the other, *S S*, having eccentric racks on their inner edges. These rack-bars are fastened to one upright by a common bolt at *K*, and pass through the upper end of an operating lever, *L*, above and below the pivot, *M*, on which it works when in use. *N* and *O* are pawls which throw the racks out of gear when elevated (as at *N*), and allow the rubber spring, *P*, to act and cause the racks to mesh on pins in the lever when depressed (as at *O*). With *N* vertical and *O* depressed, the eccentric racks are engaged, and, by moving the operating lever *L*, the uprights are forced apart and the knee bent; while, with *N* depressed and *O* vertical, the concentric racks are engaged, the uprights are drawn together and the knee straightened. But, in straightening, the angles *B' B'* are separated and the horizontal arms are made longer—carrying the upper and lower portions of the limb along with them and tending to separate the joint. There would be a strong extension at the knee with no other than the friction of contact. But, in cases of anchylosis, or where considerable force must be used, adhesive straps are applied to both thigh and leg, which are attached to the buckles *Q R*, at the extremities of the flanges *C* and *C*, so that in operating the lever *L* with the pawl *O* vertical and *N* depressed, there is extension of the leg on the thigh; and, at the same time and through the same moving force, counter-extension also at the knee-joint. Thus the knee-joint is effectually protected from hurtful pressure, either downward by the weight or action of the machine, or, concentrically, within the joint. It should be suspended and controlled by a cord and pulley, as seen. Whatever force is required to overcome the muscles or to break up or rupture osseous or fibrous adhesions, is received on the apparatus instead of impinging on the articulation. The movement may be instantly changed by altering the positions of the pawls *O* and *N*, from flexion to extension or the reverse.

And in cases where extraordinary force is necessary, or where no anæsthetic is used, the flexion or extension, as the case may be, may be let back from each extreme point, very slowly and carefully, by using the lifter *T U*, by which the racks may be lifted over, tooth by tooth, and the tension gradually diminished, without shock or pain to the patient. In cases which resist less, the action of the instrument may be directly reversed, and thus motion in a stiffened knee-joint may be kept up without pressure or friction against the articulating surfaces.

The following two cases will show the practical utility of the eccentric genuclast in cases not amenable to the application of force, by any other means that I am aware of.

The first is a case of articular rheumatism, of eight years' standing, in a lady forty-eight years old. All, or nearly all the joints were more or less affected, but the greatest difficulty was experienced from the flexion and stiffening of the knee-joints, as the acute stage passed away and the chronic stage of the disease supervened. She was unable to walk, but managed to hobble by turning the knees outward and using crutches. There was a little motion and not much tenderness, considering the disease. She was subjected to three operations on each knee, under ether, with the effect of increasing her height two inches, and diminishing the flexion and increasing the motion at the knees so much that she could get about very comfortably. But the interest of the operation consists in the fact that she felt no effect whatever upon the joints as a consequence. She was a large, powerful woman, with thick, strong muscles, and the amount of force employed was, to me, astonishing. But she was invariably up and about the next morning—the operations always occurred in the afternoon—or as soon as she had recovered from the effects of the ether, and not only denied having any tenderness in or about the knee-joints, but would proceed with the passive movements, which were a part of her treatment, just as if nothing had happened, only there would be an increase of motion. The time required to increase this lady's height two inches was ten weeks. She was heard from six months after she went home, and, up to that time, retained all the improvement which she had when she left.

The other case was one of traumatic inflammation of the right knee-joint in a lady thirty-five years old. Four years before she fell on the ice, hitting the knee, and, within a few hours, was taken with acute inflammation of that joint. The history of the case shows that she was confined for some six months with acute inflammation of the joint. After a while abscesses formed, one after another, some of them discharging bone as well as pus, and the knee bore evidence, in its cicatricial markings, of the injury it had sustained.

The limb was flexed at a right angle, and perfectly rigid; the lady was very stout; there was still a small opening near the outer hamstring discharging a small amount daily, and there were brown, indurated patches about the upper and inner aspect; and, altogether, it did not seem to be a very promising knee to operate on. But I conceived the idea that the great flexion, in connection with the large amount of adipose in the popliteal space, might be unfavorable to the circulation and nutrition of the parts. Also to still further test the application of the genuclast, in a case of progressing inflammation, I resolved to try it. So on the 2d of May, 1878, in presence of Drs. Lewis Fisher and D. B. St. John Roosa, the instrument was applied, and the leg extended on the thigh until the flexion was reduced about one-half. The limb was then placed in a retaining apparatus which kept up a certain amount of counter-extension. During the operation, after the lever "L" had been moved a number of times, and the tension had become very great, a dull thud was heard, and the leg was immediately

extended, all that it was thought advisable to do at that time. The skin under the knee had begun to crack, and I feared that some of the vessels might be ruptured if the extension were carried any further until after the parts had had time to accommodate themselves to the new position.

Considerable discomfort was experienced during forty-eight hours after the operation, but it all proceeded from the stretched muscles and torn skin, and not at all from the joint. There was no increase of redness over the indurated patches on the inner aspect of the knee, nor any other symptoms to indicate that the articulation had suffered in the slightest degree from the force which had been applied. On the 11th of May, or just one week after the first operation, it was repeated.

This time the extension was carried to a point which was considered the most favorable for anchylosis to take place, and the limb was put up in the same retaining apparatus, but it had been straightened to suit the more extended position of the leg.

Everything seeming to be favorable, she left for home about two weeks after the second operation and resumed her business of teaching. On the first of October she returned for examination and further advice. I found less color and induration in the soft parts before mentioned, the sinus had closed several times, and, though opening again, there was less discharge; there was no tenderness about the joint, and there was some motion.

This case will be watched with much interest. But, be the ultimate result what it may, the immediate effects so far seem to point to the conclusion that the rigidity of knee-joints after articular rheumatism may be greatly ameliorated; and, more important still, that incipient anchylosis may be broken up, and retracted muscles overcome by repeated operations, without injury to a chronically inflamed knee-joint, when the eccentric genuclast is used for the operation. If this should prove in other cases to be the usual result, it seems to me that the conception which has given birth to this apparatus opens up some questions of very great interest to the profession.

# Reports of Hospitals.

## BELLEVUE HOSPITAL.

### Notes of Practice and Items of Treatment.

#### INFLAMMATORY SORE THROAT—SIMPLE TONSILLITIS.

A MALE patient, æt. 30 years, was seen who had been sick two days. He was taken with a chill, which was followed by a fever and a feeling of soreness in his throat. His brother looked into his throat, and informed him that he had diphtheria. He then went to a physician, who also told him that he was suffering from diphtheria. He made application for admission to a hospital for children, was told that adults suffering from diphtheria were not received, and he then obtained admission to this hospital. He was admitted on the evening of the day he was taken sick. At that time his temperature was 103° F. On the following morning the temperature was 101¼° F., and in the evening 102° F. On the next morning his temperature was 100° F.

The appearance of his throat had changed so much that there was nothing special to be seen, except swelling and redness of the tonsils, the mucous membrane of the pharynx, and the uvula. The white patches which were upon the tonsils had entirely disappeared.

The patient had suffered, not from diphtheria, but from simple tonsillitis, or that form in which there was deposited a considerable amount of white matter upon the tonsils. It was remarked that such cases were very frequently mistaken for diphtheria. It was, however, regarded as a case of ordinary sore throat, which had been characterized by symptoms rather more severe than those usually present.

In this connection, reference was made to two cases of sore throat in which the symptoms deviated from those ordinarily present sufficiently to make them worthy of special mention.

#### ŒDEMA AND CONGESTION OF THE UVULA—URGENT DYSPNŒA—OPERATIVE INTERFERENCE.

The *first* was in a gentlemen about 45 years of age, strong and vigorous. On examining his throat it was found that both tonsils were swollen, and regularly and symmetrically dotted with small white spots, indicating that each of the orifices of the crypts of the tonsils contained a white plug of mucus and epithelium. The patient had no febrile movement. On the following day, however, he was worse, the tonsils were more swollen than on the previous day, and the inflammation had extended to the pharynx.

The inflammation increased in severity from day to day; the tonsils became more and more swollen, and the swelling of the uvula and the mucous membrane of the pharynx became more and more marked. The uvula became enormously swollen. As the severity of the symptoms gradually increased, he as gradually lost his voice. On the fourth day he began to have considerable dyspnœa, especially when lying. At the end of the fourth day the dyspnœa became quite alarming. During the entire night he was scarcely able to get his breath, and spent most of the time in coughing and gagging efforts to obtain inspirations. On the next morning the dyspnœa was still more marked. During one attack he became almost cyanotic, and it was thought he was dying. When examined, it was found that the tonsils and uvula touched each other, and were so much swollen that it was impossible to see the pharyngeal wall. It seemed evident that the dyspnœa, to a very great extent, was caused by the swollen uvula. The uvula was as large as an ordinary thumb, and it seemed to act as a barrier to the entrance of air into the larynx. The indications were pressing, and the uvula was at once slit with an ordinary sharp-pointed bistoury thrust into it, and cutting directly downward. This gave the man relief very promptly, and during the course of the day the relief was still more apparent.

On the following day it was evident that suppuration was taking place in one of the tonsils which had been extensively swollen, and soon after rupture of the walls of the abscess occurred, and pus was discharged from the mouth. Very marked relief followed the evacuation of the pus, and the patient was soon convalescent. The entire duration of the inflammation was about two weeks, and at one time there was really considerable danger of suffocation.

#### PHLEGMONOUS INFLAMMATION OF THE UVULA—URGENT DYSPNŒA—INCISION—RECOVERY.

In the *second* case the condition was more unusual than that seen in the case just related.

The patient was a young woman. On examining the throat it was found that the tonsils were slightly swollen, and that there was considerable pharyngitis.

She had been subject to ordinary attacks of sore

throat, and had also had several attacks of suppurative tonsillitis.

A palliative remedy was ordered. The patient came under observation five days afterwards, when it was found that during the entire time she had been gradually getting worse. There was, however, no febrile movement, but she had not been able to take any food for two days, because of the pain which was produced by any attempt to swallow. She had not been able to lie down, because as soon as she made the attempt she felt as though she were choking. When her throat was examined it was found that apparently the tonsils were no more swollen than at first, and they were perfectly clean. There was a moderate amount of general pharyngitis, but the surface of the mucous membrane was entirely clean. The uvula, however, was very much swollen, and the swelling was particularly in its antero-posterior diameter. It was not only swollen, but it was extremely congested; it was of a purple color. In addition to the swelling and congestion, the uvula was completely covered with a material which presented very much the appearance of false membrane—a pretty thick layer of whitish material. The appearance suggested the presence of diphtheria.

The conclusion was however reached that it was a case of inflammation of the uvula, the inflammation involving not only the mucous membrane, but all the tissues of the uvula. In other words, it was regarded as a case of phlegmonous inflammation of the uvula, and the coating which was present was really nothing more than mucus produced by an excessive action of the mucous glands and follicles.

The dyspnœa was not particularly alarming, although she could speak only in a whisper.

On the following morning the dyspnœa was considerable, and she had attacks which were very severe. She was then able to speak only in a very low whisper, and some doubt was felt as to whether a mistake in diagnosis had not been made, and that it was really a case of diphtheria, which had extended into the larynx.

The throat, however, presented the same appearance it did the day before, the evidence of inflammation being confined entirely to the uvula. But the dyspnœa was rather that of œdema glottidis than that produced by any change in the larynx. It was chiefly upon inspiration, and was not attended by any laryngeal voice or laryngeal cough. She was able to fill her lungs without difficulty when she was sitting up and was quiet. The dyspnœa, however, was so alarming that the necessary steps were taken to have some one ready to perform tracheotomy at any time in the course of the day, if it became necessary. In the meantime the plan of treatment adopted in the first case was carried into effect, and the uvula was incised with a sharp-pointed, curved bistoury, as in the preceding one; incision of the uvula was followed by almost immediate relief. The woman continued to improve, within twelve hours the dyspnœa had entirely disappeared. In addition to slitting the uvula, a gargle containing tannin and iodoform was ordered. The coating of mucus which was upon the uvula quickly disappeared, and it was then evident that there had been phlegmonous inflammation of the uvula. For it could be seen that the tip of the uvula had fairly sloughed, and there was left behind a surface which had commenced to granulate.

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Abscess of the Kidney by Aspiration.—Arthur Lucas, M.R.C.S., reports (*Lancet*, Sept. 28th) the successful treatment of a case of abscess of the kidney by aspiration.

# Progress of Medical Science.

Cerebellar Lesion with Hemiplegia and Aphasia.—Dr. Ringrose Atkins reports a very interesting case, which is extremely important in its physiological bearings.

The patient, æt. 38 years, was admitted into Waterford Asylum, May 8th, '77; she had been of an excitable and eccentric disposition from childhood, and occasionally had mild epileptic fits since youth. Some time ago she had a severe epileptic seizure followed by right hemiplegia and aphasia, which lasted three weeks, but she completely recovered. A little time before admission she had occasional paroxysms of violence, and developed various delusions. On the morning of June 8th she was found to have become affected, during the night, with right hemiplegia and complete aphasia; sensation was also completely abolished on the paralyzed side. On June 13th the patient suddenly became affected with unilateral right-sided convulsions; she died on June 16th.

Autopsy.—The vessels of the arachnoid and pia mater were distended with dark-colored fluid blood. The vessels at the base of the brain were atheromatous. No embolus or other plugging of the vessels could be detected even in the minute divisions of the middle cerebrals. Both opto-striate bodies were flabby and flattened, the posterior extremity of the left optic thalamus more markedly so. The left lateral lobe of the cerebellum was so softened and broken down that a considerable gap was produced in its external border.

Ferrier states that it is established beyond all question that lesions of the cerebellum do not cause hemiplegia of the opposite side of the body, except when it produces compression of the subjacent track of the pons and medulla. There is also overwhelming evidence in support of the assertion that cerebellar lesions do not cause loss of tactile sensation. With this seeming contradiction, the hypothesis of Brown-Séquard cannot be overlooked, that the lesion of the cerebellum may have produced the paralysis by an irritation which restrained and arrested the action of nerve cells, at a distance from the seat of the lesion (inhibition). The question arises whether the hemianæsthesia was connected with the partial wasting of the left optic thalamus, but this cannot be answered satisfactorily. Keeping in mind the morbid conditions occurring elsewhere, this state of the optic thalamus, with the probable degeneration which existed both in its histological elements and in those of the corpus striatum, gives some show of support to the hypothesis that the functional activity of these ganglia, already weakened, was finally arrested by the irritative lesion in the cerebellum, the route by which the motor impulses travel downwards from the speech centre, being at the same time interrupted and resulting in aphasia.—*Brain*, Oct., 1878.

Congenital Absence of Hand, and Corresponding Atrophy of the Brain.—Dr. W. R. Gowers, in "*Brain*" of Oct., 1878, gives the results of an autopsy in a case of congenital absence of one hand. Dissection of the arm showed that the bones of the forearm were normally developed, but that at their extremity there was only an irregular mass of bone, apparently corresponding to the carpus.

The two hemispheres of the brain were nearly of the same size. The frontal and ascending frontal convolutions were nearly of the same area, but a marked

difference existed between the two ascending parietal convolutions. At their origin in the longitudinal fissure they were quite equal in size, and continued so for the upper inch and a half. In the next (middle) two inches there was a very marked difference, the right being a narrow single convolution, and the left broad and depressed by a slight secondary sulcus. The lowest extremities of the two convolutions were equal in size. Otherwise, the two sides of the brain were alike.

The chief interest of the case arises from the fact that the diminution of size in the ascending parietal convolution on the opposite side of the brain occupies precisely the area, stimulation of which, according to Ferrier's experiments upon monkeys, causes movements of the opposite hand. In several instances, in cases of old amputation of the arm, an atrophy has been found, but it has been slight and has not been uniformly localized. The strict limitation of the atrophy to the hand region, in this case, affords striking support to the experimental results.

INSANITY CURED BY TREATMENT OF A UTERINE DISPLACEMENT.—In a communication to "Brain" of July, 1878, on the cure of a case of insanity by the correction of a coexisting uterine displacement, Dr. Savage gives the following history: E. G., married, æt. 45 years; no hereditary tendency to insanity; has just passed the change of life. Symptoms of insanity began two months ago; the patient began neglecting her home duties, attempted suicide, and had delusions of "persecution." Morphia was tried, but it produced sickness and did no good; patient remained in same mental condition for two months. Dr. Savage then discovered that she had a large, heavy uterus, which was much prolapsed, and accordingly kept her in bed for some days. She was more quiet at first, but, finding that the uterus would not keep its place while the patient was lying down, Dr. Savage introduced an air-pessary, and thus maintained the womb in position. Within twenty-four hours the patient was feeling better, and evidently improving in intellect. Within a week she was comfortable, but the temporary removal of the pessary again caused mental distress.

In three weeks from the introduction of the pessary she returned to her family, and has remained quite well ever since (a period of four months).

SYPHILITIC EPILEPSY.—From records of 274 cases of epileptiform seizures of an undoubted syphilitic origin, Dr. Thomas Stretch Dowse summarizes his observations very briefly as follows: The age of the patient is an important guide. Should a man or woman be attacked by epilepsy between thirty and forty years of age, without having any hereditary predisposition, or a previous seizure, then a syphilitic cause may be apprehended. And, apart from this, provided that between the attacks there is more or less mental derangement, our basis for a diagnosis is greatly simplified, and it is even more so if there be a paresis more or less profound, localized, or unilateral, but gradually passing off after the epileptiform seizure. The reflex processes are rarely if ever completely absent. The iris may contract under the influence of a strong light; the lips close when the conjunctiva is tickled, and a state of anti-consciousness, rather than profound coma, is a prominent feature from first to last.

The stages of the attack are ill-defined, and merge the one into the other. The universal tonic spasm, with thotonism, rarely presents itself. Pallor, rather than cyanosis, is the facial exponent, and the duration of the fit is protracted to many hours, with intervals of wandering, delirium, and excitement. Foaming at the mouth is less prominent than a profuse flow of saliva, and all sorts of cries are associated with the seizure; but they are rarely so exalted as Romberg expresses it, "Shrill and terrifying to man and beast."

And, lastly, in reference to albumen in the urine. Considerable attention has been given to this point, but it has not been found in any but a few of the cases; but epileptoid seizures, associated with albuminoid syphilis, and a plentiful secretion of phosphatic albuminous urine, are not uncommon.—*The Practitioner*, October, 1878.

THE TRANSFUSION OF BLOOD IN A CASE OF OPIUM-POISONING.—Dr. Thomas G. Morton, of Philadelphia, recently performed transfusion at the Pennsylvania Hospital, in that city, in a serious case of opium-poisoning. The patient, a man of some forty years of age, was brought into the hospital in a comatose condition. In order to relieve the system of the poison a large quantity of blood was drawn from him before transfusing the patient. Eight ounces of defibrinated blood were then thrown into the saphena vein on the right foot. The pulse rose, the respirations increased in number after the operation, and the patient began to grow steadily better, when, five hours after the fresh blood had been introduced, his heart suddenly ceased beating, and he died without a word.

RECENT ACUTE MYELITIS IN AN INFANT; SOFTENING OF ANTERIOR CORNUA.—The patient, æt. 2½ years, was admitted into hospital December, 1877. Four weeks previously it had had a fall. Ten days afterward it grew ill, and two or three days later mother noticed paralysis of left arm and leg. Upon admission, there was complete paralysis of motion and sensation in the legs, and of motion in the arms; complete loss of reflex action in the limbs. The evacuations were involuntary. Temperature ranged from 99°–100° F. Two weeks later the child was less dull, and power was beginning to return to the arms. A few days later arm-movements were quite free; the legs were sensitive, and could be drawn up in bed. The child now began to suffer from measles, and died Jan. 24, 1878, of secondary broncho-pneumonia.

Autopsy: The gray matter of the cord everywhere thickened, with spots of red softening in the anterior horns of lumbar region. Numerous leucocytes were seen in the perivascular spaces in the lumbar region, just above the softened parts. The ganglion-cells were gone on the left side, and their places taken by leucocytes, granular bodies, and free nuclei. There were scarcely any polar cells in the posterior horns; numerous nuclei along the vessels, and scattered in groups throughout the horns. The changes in the cervical were very marked, more so than in the dorsal. The only change in the medulla and pons consisted in an increase of leucocytes. Distinct sclerosis was visible in the antero-lateral columns. The accumulation of leucocytes around vessels was seen in otherwise healthy parts. This appears to suggest that the disease at first affects the vessels only, the nerve-structures being secondarily involved.—*Dr. Turner, London Path. Soc., Feb.* 4, 1879.

CLIMATE OF AFRICA.—South Africa is recommended by Harry Leach, M.R.C.S. (see *The Practitioner*, Oct.), as a fine climate for certain consumptives and other invalids. Dry air and pretty even temperatures are the peculiarities of the climate.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, March 15, 1879.


## THE NATIONAL HEALTH BUREAU.

A BILL calculated to prevent the introduction of infectious or contagious diseases into the United States, and to establish a National Board of Health, passed the House of Representatives during the last day of the session of that body. To such as have watched the progress of legislation regarding the creation of a health bureau, and have taken an impartial view of the necessity for such a department, there will be much disappointment at the result.

The bill in question was presented by Mr. McGowan, of Missouri, and after very little debate was duly passed. It provides for the establishment of a National Board of Health, to consist of seven members, to be appointed by the President, by and with the advice and consent of the Senate, not more than one of whom shall be appointed from any one State. The compensation of the members during the time when actually engaged in the performance of their duties under this act, will be ten dollars per diem each and reasonable expenses, and of one medical officer of the army, one medical officer of the navy, one medical officer of the marine hospital service, and one officer from the Department of Justice, to be detailed by the Secretaries of the several departments and the Attorney General, respectively, and the officers so detailed will receive no compensation. Said board will meet in Washington within thirty days after the passage of this act, and in Washington or elsewhere, from time to time, upon notice from the president of the board, who is to be chosen by the members thereof, or upon its own adjournments, who will frame all rules and regulations authorized or required by this act, and make or cause to be made such special examinations and investigations at any place or places within the United States or at foreign ports, as they may deem best, to aid in the execution of this act and the promotion of its objects.

The duties of the National Board of Health are simply to obtain information upon all matters affecting the public health, to advise the several departments of the government, the executives of the several States, and the Commissioners of the District of Columbia, on all questions submitted by them, or whenever, in the opinion of the board, such advice may tend to the preservation and improvement of the public health.

Section third of the bill provides, "that the board, with the assistance of the Academy of Science, shall report to Congress at its next session a full statement of its transactions, together with a plan for a national public health organization, which plan shall be prepared after consultation with the principal sanitary organizations and the sanitarians of the several States of the United States, special attention being given to the subject of quarantine, both maritime and inland, and especially as to regulations which should be established between State or local systems of quarantine and a national quarantine system.

"*Sec.* 4. The sum of fifty thousand dollars, or so much thereof as may be necessary, is hereby appropriated to pay the salaries and expenses of said board."

After so much time spent in legislation upon sanitary matters, and so much discussion upon the different health bills which have been presented to Congress, it is a matter of great regret that more has not been accomplished. The board, although admirably constituted and calculated for much effective work, has really nothing more than advisory power, and is calculated to act merely in the capacity of a committee of inquiry regarding a plan for a future national health organization. So far as the establishment of any system of national quarantine is concerned, nothing has been accomplished. The wisdom of such an omission is certainly very questionable, especially in view of the probability of the reappearance of yellow fever next summer.

All the investigations which have been held recently concerning the spread of yellow fever have demonstrated the necessity for quarantine. The only difference of opinion appears to be concerning the rigidity of the restrictions. The majority of advanced sanitarians are on the side of common sense, and believe that efficient quarantine is consistent with protection of the people on one hand, and that of commerce on the other. It does not appear that any further investigation on this point is necessary, at least in view of prospective emergencies. The history of the last epidemic also demonstrated that something more than local or State quarantine was necessary. While railroad stations were guarded with shot-gun patrolmen, while towns were surrounded by armed citizens, while refugees were banished to the swamps, and charity was lost in fear, the rivers were open to free traffic, and the decaying corpses of the victims of fever were transported for miles without hindrance. It was not until the disease had gained a secure foot-

hold along the Mississippi that the inhabitants on its banks took matters in their own hands for self-protection. It cannot be doubted that if some intelligent and uniform system of quarantine was enforced by a power stronger than that of the local authorities, that much needless suffering would be prevented and many valuable lives saved. The question is whether these experiences of the past year are to be repeated during the next summer; and if so, what is going to be done to stay the progress of the pestilence while the new health board is deliberating upon their next report to Congress.

The other bills, any one of which was better calculated to protect the people than the one in question, were defeated in consequence of the ultra views on State's rights entertained by many of the Southern and New York members. It has not yet been proven, however, that such rights would have been interfered with by any provisions contained in the bills aforesaid. On the contrary, it was designed in each instance that the federal government should merely aid the States in times of emergency, and not in any way interfere with their respective rights. So strong, however, was the feeling regarding this doctrine of State's rights that a clause in the original bill of Mr. McGowan, to the effect that the health board should aid in the work of State boards of health, and in that of State or municipal quarantine authorities, was stricken out, thus completely depriving the Act of its greatest, if not only means of real usefulness.

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### AURAL HYGIENE AND THE PUBLIC SCHOOLS.

THE eighth annual report of the New York Ear Dispensary has just been issued, and the workings of the institution are set forth in the report of the trustees. Since the establishment of this charity it has been the aim of the trustees to improve the condition of the partly deaf children found in the public schools, the officers of the dispensary having had forced on their attention from year to year the neglect shown this class.

It would appear to be a natural and simple matter for teachers to seat children with this defect sufficiently near their desks to make themselves heard; yet it is well known that, for the guidance of teachers in this matter, there are no established rules in the schools. Bitter complaints are frequently made at the dispensary, by parents, of the neglect of partly deaf scholars at examinations for promotion; those not hearing well enough to promptly catch questions fail to give correct answers, and are thus unable to secure a promotion to which they are clearly entitled.

This failure to comprehend the status of a class whose number is really greater than generally supposed, imposes increased labor on the already much-taxed teacher, and the partly deaf are thus compelled to learn under great disadvantages, as well as being a hindrance to others. The trustees recommend, as a means of solving this difficulty, in part at least, that he hearing power of each pupil be tested before he is assigned to a seat, and they suggest a very simple plan intended to aid teachers in carrying out this matter, instructions for which are printed in the end of the report. The trustees dwell with much earnestness on the imperfect hygiene of our public schools, and, indeed, if we are to credit one-half the complaints coming from many and various sources on this subject, the present system could go back and borrow considerable knowledge from the old log school-house of early days. A defective system of heating and ventilation seems to be at the bottom of this evil, and its direful influence on the youth who pass many hours daily, at an important period of their physical development, in a foul atmosphere, cannot be over-estimated, and it seems especially hard when it is considered that attendance is in part compulsory. The city has here an opportunity to establish model houses for school purposes, and they should certainly do this before enacting laws to enforce the construction of model tenement-houses by others.

The report further says: "Attacks of inflammation of the ear frequently occur from seating children too near a stove, or other source of heat, or permitting them to be exposed to a draught of cold air near a window or door. The former are rendered very sensitive to colds thereby, and an earache, with purulent discharge from the ear, frequently follows. This source of aural disease could be greatly lessened by a better system of heating and ventilation."

Believing that an early attention to throat affections is likely to lessen the frequency of aural diseases, the trustees have considered it best to re-establish the Throat Department, and, being convinced that aural surgery can be made serviceable in the same manner, they have also established a Dental Department.

The report of Samuel Sexton, M.D., the Aural Surgeon-in-Charge, states that during the year 575 patients were treated. He draws attention to the change in the nomenclature of aural diseases which has been made necessary by the requirements of modern aural pathology. Thus, "impacted" cerumen is not enumerated as a disease; in fact, the presence of cerumen in the external auditory meatus is owing to an anomaly of secretion, and its "impaction" is not an invariable incident. Affections of the tympanum are classified as nearly as possible according to their pathological significance, and *symptoms* of disease, as tinnitus aurium and the like, are not included in the list as diseases.

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### THE INDEX OF THE LIBRARY CATALOGUE.

THE authorization of the printing and binding of the first and second volumes of the index catalogue of the library of the Surgeon-General's Office will be a subject for congratulation with medical scholars through-

out this and other countries. A clause in the Sundry Civil Appropriation bill names twenty thousand dollars for that purpose. The volumes are promised by June, 1880. Although the succeeding volumes are not yet provided for, a proper initiation has been taken, and there will be no doubt, when the time for the publication of these arrives, the means for so doing will be forthcoming. The profession has taken a great interest in the project, and too much praise cannot be given to the legislature for its action in bringing about the result.

## Reviews and Notices of Books.

THE CONSTITUENTS OF CLIMATE, with Special Reference to the Climate of Florida. By FREDERICK D. LENTE.

ANY well-directed effort to enlighten the profession on the subject of climate should be hailed with delight. Dr. Lente has laid the profession under obligations for his carefully written pamphlet. He has added much to our knowledge of the climate of Florida, and has made this knowledge practical by aiding the physician to answer the questions so often asked by the patient: "Where shall I go?" "When shall I go, and how soon will it be safe for me to leave the climate to which I go, and return home?" Dr. Lente is in a position to judge, having spent several winters in Florida, and having made the climate and its influences a special study.

At this season of the year, when both physician and patient are interested in the subject, the information is specially valuable.

Considerable space is given to the subject of the influence of climate on pulmonary diseases. Almost all physicians are agreed that phthisical patients receive the greatest benefit in that climate in which they may be most out of doors. Dr. Lente shows that Florida offers a climate which permits of the patient living out of doors even more than Europe's favorite winter homes, Mentone, Cannes, Nice, etc.

Dr. Lente also gives great encouragement to the sufferer from malaria, that the climate of Florida will benefit him. For sufferers from the early stages of Bright's disease, the so-called nervous prostrations, throat affections, certain forms of dyspepsia, and rheumatism, Florida offers a climate well adapted to benefit.

Dr. Lente points out one great error that patients from the North are apt to fall into, and that is in regard to diet and clothing. They forget in the change of climate to change the diet to suit that climate, and the result is an attack of indigestion, which aggravates their already existing diseases. Dr. Lente thinks thicker clothing should be worn in Florida than in New York for the same temperature. Any patient going to Florida or any other locality for the benefit of his health should seek the advice of some intelligent physician in the locality to which he goes, and not depend on the general advice of his physician at home.

TRANSACTIONS OF THE OHIO MEDICAL STATE SOCIETY. THIRTY-THIRD Annual Meeting, held May, 1878. Columbus, Ohio: Cott & Hann. 1878.

AFTER the report of the "minutes" of the Society, we are brought face to face with the papers presented at this meeting. That of the retiring president, Dr. W. Philips, of Kenton, upon "The Testimony of Medical Experts," is one of much interest and value. The author holds that the State should provide a man whose special education and training renders him competent to instruct the judge and jury upon points which can only be mastered by special scientists. We heartily agree with Dr. Philips.

Prof. J. W. Hamilton, M.D., records four very interesting cases of "Maxillary and Naso-Pharyngeal Tumors," with remarks upon the operations. "Throat and Nasal Affections in their Relations to Diseases of the Ear" is an interesting and instructive paper by Dr. J. H. Buckner, of Cincinnati. Scarlatina, measles, variola, coryza, pertussis, enlargement of the tonsils, diphtheria, syphilitic sore throat, hereditary syphilis, adenoid vegetations (naso-pharyngeal), as well as more ordinary inflammatory affections of the naso-pharynx, are given as the causes of ear diseases.

Dr. C. S. Muscroft has great faith in "The Use of Sub-sulphate of Iron as a Local Remedy." "The Curette in Certain Forms of Uterine Diseases, with Cases," by Thad. A. Reamy, M.D., calls for no special mention.

Dr. R. L. Sweeney gives "A Report on Chronic Inversion of the Uterus." He employed White's repositor with success.

The remaining five papers, and an obituary report, are of no particular interest. A list of members is appended. The officers elected for the ensuing year were: *President*, B. B. Leonard, West Liberty; *Treasurer and Librarian*, T. W. Jones, Columbus; *Secretary*, J. F. Baldwin, Columbus.

PROCEEDINGS OF THE FLORIDA MEDICAL ASSOCIATION Session of 1878.

THE officers elected for the present year are: *President*, R. D. Murray, Key West; *Secretary*, J. Y. Porter, Key West; *Treasurer*, J. D. Fernandez, Jacksonville. The transactions of this association narrowed themselves to the simple presentation of two very lengthy and valuable papers upon Yellow Fever as it occurred at Jacksonville and Fernandina. The former was read by R. P. Daniel, M.D., the latter by C. W. Horsey, M.D.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF WEST VIRGINIA, 1878.

THIS Society held its annual meeting in the town of Weston, May 22d and 23d, 1878. At this meeting it elected the following officers for the ensuing year: *President*, Wesley H. Sharp, Volcano; *Secretary*, M. F. Hullihen, Wheeling; *Treasurer*, J. C. Hupp, Wheeling.

This volume contains, besides the "minutes" and an address by the retiring president, Dr. J. W. McSherry, nine papers. Drs. M. R. Boyd and J. H. Brownfield each report an interesting case of "Extra-Uterine Pregnancy." Portions of the fœtal skeleton were removed, in one case through the abdominal walls, in the other per rectum. "Puerperal Insanity," by A. H. Kunst, M.D., in nowise adds to our knowledge of the pathology or treatment of the affection. Dr. W. H. Sharp, "Concerning the Dressing of Wounds," gives a short but excellent review of Lister's dressings and their modifications.

Among quite a number of "Surgical Cases" reported by John Frissell, M.D., Wheeling, which are of no special interest, we find several very interesting ones of traumatic aneurisms and injuries of arteries. The other papers contained in this pamphlet are of insufficient interest to warrant mention.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA. Twenty-eighth Session, 1878. Phila.: Collins. 1878.

WE heartily welcome this last volume of the Society's Transactions, so full is it of excellent practical and instructive papers. At this annual meeting the president-elect, Prof. D. Hayes Agnew, presided. The officers for the ensuing year were elected as follows: *President*, J. L. Stewart, Erie County; *Permanent Secretary*, W. B. Atkinson, Philadelphia Co.; *Recording Secretary*, J. N. Kerlin, Delaware Co.; *Treasurer*, Benj. Lee, Philadelphia Co.

Prof. D. Hayes Agnew, M.D., delivered an address upon "Errors in Diagnosis," which is of great interest, and goes to show that not even the best of us are infallible, as the series of blunders which he relates as having been made by Dupuytren, Pirogoff, Diffenbach, and many others of eminence, prove. Prof. Wm. Goodell, M.D., delivered an address in Obstetrics, on "Lacerations of the Cervix Uteri." He refers in the outset to the fact that Emmet "has written pretty much all that can be said about it." Dr. Goodell, however, gives an excellent account of the etiology, pathology, sequelæ, and treatment of the affection under consideration, and records two cases.

"The Rational Treatment of Stricture of the Urethra," by Prof. S. W. Gross, M.D., further exemplifies the views reported in THE MEDICAL RECORD for June 15th and October 5th, 1878. The author accepts the treatment so ably advocated by Prof. Otis, namely, the restoration of the canal to its original calibre, as determined by the urethrometer, whether by urethrotomy or divulsion. Dr. Gross gives the preference to internal urethrotomy.

Dr. J. B. Murdoch, of Pittsburgh, reports a rare and exceedingly interesting "Case of Dislocation of the Hip, complicated with Fracture of the Femur." Much space is given to points in diagnosis, and we can congratulate those who have the opportunity of reading this valuable paper. "Psoas Abscess simulating Nervous Affections," by Charles K. Mills, M.D., and "Clinical Study of Catarrhal Inflammation of the Bile-Ducts, with Remarks on the Use of Nitrate of Silver in its Treatment," by William Pepper, A.M., M.D., are two excellent papers. Want of space forbids further specification of the many remaining papers read before the State Society's meeting and at the meetings of the various county medical societies. Some of these papers are so valuable we regret being obliged to pass them by.

LECTURE ON BRIGHT'S DISEASE OF THE KIDNEYS, delivered at the School of Medicine of Paris, by J. M. CHARCOT, Professor in the Faculty of Medicine, Paris, Physician to the Salpêtrière, etc. Translated, with the permission of the author, by Henry B. Millard, M.D., A.M. New York: William Wood & Co. 1878.

THERE has long been felt the want of a brief work on the pathology of Bright's disease of the kidneys, one that should sift out all that is theoretical, and present to the busy practitioner and student all that is known of the affections of this organ coming under the general name of Bright's disease. These lectures of Charcot supply such a want. The work consists of seven lectures, two on the normal anatomy of the kidney and the physiology of urinary secretions; one on tubular infarctus, urinary casts, and a summary view of Bright's disease. Then follow two lectures on interstitial nephritis, one on parenchymatous nephritis, and one on the amyloid kidney.

He considers that all forms of disease of the kidney coming under the head of Bright's disease, not only from an anatomo-pathological point of view, but as regards etiology and symptomatology, belong to one of three varieties, namely: interstitial or parenchymatous nephritis, or the amyloid kidney.

Under each head he gives an account of the etiology, symptoms, anatomical characteristics, and histology of the variety under consideration. He considers "that scarlatinous nephritis is confounded by many authors with parenchymatous nephritis, and that the point of departure of permanent lesions attributable to the large white kidney is founded on no decisive observation, but that histological examinations concur in showing the renal alteration to be a form of acute or subacute variety of interstitial nephritis." He does not touch on the question of treatment. The volume is illustrated with sixteen woodcuts and two chromo-lithographs. The thanks of the profession are due to the translator, Dr. Millard, for the way in which he has performed his portion of the work, and to the publishers for the clear type and elegant appearance of the book. It should be read by every one who desires to be informed of the pathology of Bright's disease.

A HAND-BOOK OF NURSING, FOR FAMILY AND GENERAL USES. Published under the direction of the Connecticut Training-School for Nurses, State Hospital, New Haven, Connecticut. Philadelphia: J. B. Lippincott & Co. 1879.

THE number of books on nursing that have been issued within the past few years show that the subject is at last receiving the attention it deserves. This book is one of the best that we have seen; it is really what it claims to be: "a hand-book of nursing," medical, surgical, and monthly. It is clear and practical in its instruction, and is intended not only for the professional nurse, but for every one who may be called upon to take care of the sick. It should find a place in every family. The chapter on "Family Hygiene" is particularly to be commended, short as it is. The volume is a credit to the committee under whose direction it has been prepared and published.

PRACTICAL GYNÆCOLOGY. A Hand-book for Students and Practitioners. With illustrations. By HEYWOOD SMITH, M.A., M.D., Oxon., etc. Demy 8vo. Philadelphia: Lindsay & Blakiston. 1878.

THIS is another volume of the "Student's Guide Series." While we admit it may be valuable for the "last year's" student to refresh his knowledge, any "busy practitioner" who feels the need of such a superficial work as this for consultation must necessarily have so limited a knowledge of gynæcology as to be unfit to attempt its practice. We are not a little surprised to be made aware of Dr. S.'s complacent estimation of his work by reading, in the preface: "If I have rendered the subject of Gynæcology more easily understood, and placed in the hands of general practitioners a means of helping them to a more accurate diagnosis [!!] and treatment of diseases that form an increasingly important branch of their practice, my labor will be amply repaid."

ELEMENTARY AND QUANTITATIVE ANALYSIS. By ALEXANDER CLASSEN, Professor in the Royal Polytechnic School, Aix-la-Chapelle. Translated, with Notes and Additions, by EDGAR F. SMITH, Ph.D., Assistant Prof. of Chemistry in the Towne Scientific School, University of Pennsylvania. Royal 12mo. 324 pages, with illustrations. Philadelphia: H. C. Lea. 1878.

THIS handsome little volume should receive a hearty welcome from American students of chemistry. The fact that it has been adopted as a text-book in Germany, and by many of the prominent universities and polytechnic schools in France, Russia, and Poland, where translations have appeared, should be a suffi-

cient guarantee of its worth. The student will find herein detailed the necessary practical methods—those only which have stood the test of experience, for *qualitative* analysis of minerals and their compounds. It deals with *inorganic* substances only. We can fully recommend it as an eminently useful and practical book, indispensable in the laboratory.

MODERN MEDICAL THERAPEUTICS: A Compendium of Recent Formulæ and Specific Therapeutical Directions, etc. By GEO. H. NAPHEYS, A.M., M.D. Sixth edition, enlarged and revised. Philadelphia: D. G. Brinton, 115 S. Seventh St. 1879.

WE are hardly surprised to find that the sixth edition of this work is before us within a period of time which is so short. The editor has given the work a thorough revision, expanded it to the necessity of an extra volume on diseases of women (to appear shortly), and has added in the present volume the subjects of Typhus Fever, Yellow Fever, Mercurialism, Plumbism, and a number of Diseases of Children. This work evidently supplies "a want long felt."

# Reports of Societies.

## NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, February* 12, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

### VESICAL CALCULUS.

DR. WYETH presented a stone originally two inches in diameter, which he had removed from a gentleman about fifty years of age. Lithotrity was considered inexpedient on account of the large size of the stone and its peculiar position (being lodged in a sac or pouch behind the pubis). The median operation was first made and the stone was crushed with the forceps. In order to remove the fragments, some of which were very large, the primary incision was enlarged laterally. The patient died from shock and exhaustion due to vomiting, about ten days after the operation. The pieces which were saved weighed 640 grains.

### COMPOUND FRACTURE OF THE FEMUR—GANGRENE—HOT-WATER TREATMENT.

DR. FOREST presented a portion of a lower extremity, accompanied by the following history: A boy, four years of age, on December 3, 1878, fell from a third story window, an unbroken fall of thirty feet, and received a compound fracture of the femur. A surgeon was called who applied a plaster-of-Paris dressing. Soon after the child became uneasy, complained of great pain, and the toes became cold, but the surgeon regarded the symptoms as unimportant, and allowed the dressing to remain.

The patient was not able to either eat or sleep, and finally, after the lapse of several days, the splint was removed, when the foot was found gangrenous. The gangrene extended, high fever developed, the child passed into a low cachectic condition, and apparently there was no chance of his recovery. Several surgeons were called, but no encouragement was given with reference to saving the life of the patient. One of the surgeons recommended, as the only hope, that the limb be amputated at the point of fracture. Dr. Forest was called December 15th, and then found that gangrene had extended up the leg, and the appearance of the limb was such as indicated its spread above the knee. He determined to make an effort to save the life of the patient by means of the hot water treatment, and therefore had a tin trough made in which the limb could be placed. It was then flowed with water at 112° F., and covered with cotton about three inches in thickness. The temperature of the water was steadily maintained at 112° F. From that time the gangrene ceased to extend. The pain passed away quickly, the child began to sleep, his appetite returned, and there was a rapid and marked improvement in his general condition. On the second day after the hot water was first applied, a line of demarcation began to form at the junction of the middle, with the upper third of the leg. About three weeks later the separation was complete, except at the posterior part of the leg, where a narrow strip of tissue still retained its vitality. In the meantime the wound in the thigh had healed, and the fracture had united. The general condition of the patient being good, Dr. Forest made an amputation, gave the lad a good stump, and preserved the integrity of the knee-joint.

### CONTAGIOUS PLEURO-PNEUMONIA IN CATTLE.

DR. LIAUTARD presented a lung removed from an animal that had died of contagious pleuro-pneumonia. At the request of the Board of Health, he had examined several cattle, had recognized the presence of the disease, and the lung presented was one obtained at a post-mortem upon one of the animals examined. The specimen exhibited the gross appearance of acute lobar pneumonia in which the development of interstitial tissue was a prominent feature. In places the lung was evidently in the stage of gray hepatization, and at several points suppuration had been established. A portion of the pleura removed from the region of the ninth rib was also presented, and showed firm thickening to the extent of nearly half an inch. Dr. Liautard regarded the disease as one produced by blood poisoning. After it had been of some standing, the lungs became of enormous size, weighing as much as forty or fifty pounds. The general period of incubation was about two months, and the infectious character of the disease varied, not only in different localities, but in different degrees in the same locality. That is to say, sometimes cows in the same stable with animals affected would escape, even the animal next to the sick one would be free from the disease, while one, two, or three removed would be attacked. There were no laws known which governed the matter of contagion. It was considered obligatory upon the part of owners of cattle to destroy the animals affected, inasmuch as there was no cure for the disease, and the animals were rendered unfit for food. He stated that in a large herd of cattle upon Long Island, there was scarcely a single animal uninfected. Inoculation had been tried, and without satisfactory results, in the way of preventing the disease.

DR. W. M. CARPENTER referred to a post-mortem which he made upon a calf that died of sporadic pleuro-pneumonia, and apparently without symptoms. The animal took his evening meal as usual, and was found dead in the yard on the following morning. None of the other animals were affected. There was a moderate amount of pneumonia and very extensive pleurisy, the exudation being soft and nearly half an inch in thickness.

CASE OF CHRONIC PACHYMENINGITIS HEMORRHAGICA INTERNA—EARLY STAGE—SMALL KIDNEYS AND HYPERTROPHIED LEFT VENTRICLE, WITH FATTY DEGENERATION OF HEART, ETC.

DR. JANEWAY presented this specimen illustrative of chronic pachymeningitis hemorrhagica, not that the affection was rare, but because he did not recall a case of the kind being exhibited to the Society. The clinical history was interesting with reference to the symptomatology of Bright's disease.

The patient was a male, fifty years of age, admitted to Bellevue Hospital on the 9th of November, 1878. There was nothing of interest about his family history. He had drunk wine and spirits regularly all his life, but rarely to excess. He had had an attack of what was called rheumatic gout in his big-toe-joint and knee some three years previous. For some four or five years he stated that he had suffered from dyspepsia, occasional œdema of the legs and feet and a puffy look about his face. He had had no headache, but had suffered somewhat from dimness of vision for a year or so. He had never suffered from convulsions, nor had he noticed anything special about his urine. He entered the hospital with pneumonia of the middle lobe of the right lung, which soon disappeared under treatment.

He showed a slight œdema of the lower limbs, and his face had a peculiar pale look. The heart showed hypertrophy of the left ventricle and fatty degeneration of its walls, at least that diagnosis was made, because, notwithstanding the percussion and palpation evidences of hypertrophy, the first sound and impulse of the heart were markedly feeble. The urine passed each day varied from fifty to seventy ounces; pale, strongly acid; specific gravity 1010, as a general rule; occasionally a trace of albumen present. Repeated microscopic examinations, twenty to thirty, by Drs. Griswold and Williams, of his house-staff, failed to show casts, and they were capable of making these examinations. The patient was considerably emaciated and weak. He was unsteady, stammering, and hesitating in his conversation, easily losing control over himself. His memory was defective, and he would do things indicating that his mental activity and sense of decency were impaired, such as defecating or urinating on the floor, expectorating similarly, and this notwithstanding efforts to restrain him.

On the 29th of November he had a convulsion, epileptoid in character, though none other occurred subsequently. The urine passed on the day of convulsion had a specific gravity of 1011, and a slight trace of albumen, but showed no casts.

On the 10th of January he was discharged, with his general health considerably improved, but his mental condition remaining in much the same state as described above.

On the 27th of January he returned to the hospital in a dying condition, living only four hours after admission.

The patient had attracted his attention during his term of service—November and December—owing to absence of albumen to any extent, and of casts completely; still, from the character of the urine, its low specific gravity, and its somewhat increased quantity, together with the enlargement of the heart and the history, he was led to the diagnosis of small kidney. The heart he was also led to believe, from the evidence above related, was the seat of fatty degenerative processes. With reference to the mental state he thought that it was possible that the retention of substances, which should have been removed by the urine, might account, as it sometimes did, for the phenomena.

The post-mortem examination showed the kidneys in a state of chronic interstitial inflammation, with a small amount of urate-infarction in the pyramidal tubes.

The heart showed marked left-ventricle hypertrophy, and fatty degeneration of the muscular fibres of both ventricles, and recent purulent pericarditis.

The right pleural sac contained about a quart of serum, and the right lung showed the middle lobe in a state of recent red hepatization. The lower lobe of left lung was the seat of red hepatization.

The great toe, metatarso-phalangeal joint, had its cartilage encrusted with urates. The knee-joint, however, showed no urate infiltration; but those conditions of the cartilage of the patella and condyles of the femur, which belong to rheumatoid arthritis; erosion, fibrillary state, proliferation of cells, and their fatty degeneration.

The brain illustrates the lesion above-mentioned. The inner surface of the dura mater on the right side was covered by a thin membrane of a mottled reddish to reddish-yellow hue; whilst generally more adherent to dura, it in some places presented portions detached from it, but adherent to pia. The attachment to dura was not firm. It existed in the greatest thickness over convexity of brain, but spread to the base. Microscopically it showed globular and granular orange-colored hematoidine connective tissue and blood-vessels, these latter being large capillaries.

On the opposite side, over the convexity, a very thin membrane was present on the inner surface of dura, of a more punctate pigment character. It, as the other, showed pigment and capillaries.

The appearances characteristic of the disease could be readily appreciated in the specimen, as he had turned the dura mater over, so as to show the new membrane partially detached from the dura on the edge of section.

The brain showed no lesion.

He also deemed this specimen of interest as showing a lesion in a case where mental impairment existed in chronic Bright's disease. The fact of urine of this nature in this case, and hypertrophy of the left ventricle, establishing the diagnosis of small kidney, was no new thing; but he had known it so often forgotten, that he thought it well to lay a little stress on it.

DR. VAN GIESEN asked if there was any sediment in the urine?

DR. JANEWAY replied in the negative, and in this connection referred to the usual causes of rapid decomposition of urine by the latter being contained in old urinals or bottles containing sediment. He always made it a rule to have entirely fresh bottles for purposes of urinary examination, and had had no reason to be dissatisfied with the results.

DR. W. M. CARPENTER thought it generally accepted that the quantity of urine and its specific gravity were more important symptoms in the diagnosis of chronic Bright's disease than the mere presence or absence of albumen and casts. He also referred to a case reported at the last meeting of the State Medical Society, by Dr. W. S. Ely, of Rochester, in which for twenty-two successive days neither casts nor albumen were found in the urine, yet the quantity was large, and had a low specific gravity, and at post-mortem a contracted kidney was found.

DR. BRIDDON stated, that as a rule, he had not found casts and albumen in the urine of patients who had gouty kidney, and that urine of low specific

gravity was much more suspicious evidence of contracted kidney than any other symptom.

MYXO-SARCOMA OF ORBIT—RAPID GROWTH.

DR. C. S. BULL presented a specimen of myxo-sarcoma of the orbit, accompanied by the following history.

Patient was a boy, æt. 8. Good family history—good previous history up to Dec. 22d. On that date he slipped, and in falling struck against the curved handle of a door-latch, and received a slight scratch of the skin over the malar protuberance, just below the orbital margin. Nothing was noticed by the boy or his parents until two days later, when the lower eyelid began rapidly to swell. He entered the Eye Infirmary on December 26, 1878, and came under the care of Dr. Loring. At that date the eyelids were almost entirely closed, owing to the great swelling of the lower lid. On pulling upward the upper lid, the eyeball was seen displaced upward and inward against the corresponding orbital wall, and almost immovable. There was no injection of the ocular or palpebral conjunctiva, and the functions of the eye were normal. There was no swelling of the upper lid, and no conjunctival secretion of any kind. The swelling of the lower lid was elastic, as if from a fluid cyst, was not painful, and the swelling could be made out to extend into the orbital cavity. The child was etherized, and an incision made parallel to the orbital margin, and about half an inch below the margin of the lower lid, about three-quarters of an inch long, and the knife introduced into the orbit about one and a quarter inch, keeping near the floor of the orbit. There was not much hemorrhage, and no pus was found. The swelling of the lid increased, and the incision was repeated three days later through the original opening, which had partially healed; this met with the same negative result. On the following day the wound began to gape, and a red, bleeding, fungoid mass began to protrude. The protrusion rapidly increased, the upper lid began to swell and become red, and the child began to run down in health. There was no change in the eye. Vision was good to the last, and the ophthalmoscope showed a normal optic disc. The hemorrhage was considerable all the time from the growth, and it was decided to operate. The operation was done January 13, 1879. It was found impossible to remove the growth, leaving the eye in place, so enucleation of the latter was the first step in the operation. The optic nerve was found apparently intact, and microscopic sections showed the nerve to be normal. An incision was then made through the skin of the cheek from the external angle of the lids, downward and inward in a curved line across the malar bone, through healthy tissue, and then upward to a point near the lower lachrymal puncture, thus cutting away about four-fifths of the lower lid. The main portion of the orbital growth was then removed entire with the part that protruded, with great ease. The orbit was cleaned thoroughly by means of scoop and scissors, the entire contents being removed down to the periosteum. The whole orbital tissue was found infiltrated with the growth, which seemed to be adherent to the periosteum mainly at one point, near the outer and lower wall of the orbit. Since the operation, the child has done well. The orbit is granulating from the bottom, and eventually the margin of the upper lid will be brought in contact with the raw surface of the incision below and united by sutures.

The growth proved to be a myxo-sarcoma and very vascular. The extreme rapidity of its growth and the slight exciting cause are the main points of interest in the case. Another interesting point is the condition of the optic nerve. Though the eyeball was greatly displaced, and the optic nerve put strongly on the stretch, and though a great degree of pressure must of necessity have been exerted upon the optic nerve in the orbit, yet the optic disc never showed any departure from a state of health, and sections of the nerve posterior to the eyeball showed it to be normal.

DR. JANEWAY stated that he had seen myxo-sarcomatous tumors disappear under the use of Fowler's solution given in five-drop doses, t. i. d., for three months. At the same time static electricity was employed. Such results had been obtained in a girl who had ten such tumors scattered over her body. He further facetiously referred to the fact that some tumors, of the same variety, which existed in the brain, could not be reached.

DR. BRIDDON referred to the rapidity with which myxo-sarcomatous tumors returned, and illustrated the fact by a case from which a tumor was removed, and reappeared in the granulations.

VESICAL CALCULI—BIGELOW'S METHOD.

DR. KEYES exhibited four vesical calculi, which he showed not so much for the value of the specimens, or for the peculiarities of the cases, as to put them upon record as the 10th, 11th, 12th, and 13th cases in which he had operated by Bigelow's method. He also took occasion to make a few remarks regarding certain manipulations which he had found to be serviceable.

The first case was that of an old man who had symptoms of stone for two or three years. He was operated upon December 10, 1878. The stone weighed two drachms, and the operation was completed in forty-five minutes. He came to town yesterday, and was well.

The second case was operated upon January 15, 1879. The stone was composed mostly of urates, weighed six drachms, and was removed in an hour and two minutes. On account of a clogging in the water-bottle the operation and evacuation was somewhat delayed. At the end of one week the patient was out walking, and in two weeks left town.

The third case was operated upon January 28, 1879. The stone weighed six drachms, and was composed mainly of urates. The operation occupied thirty-five minutes.

The fourth case was operated upon that afternoon. The patient was a gentleman from Newark, N. J., whom he saw, with Dr. Van Buren, for the first time in January, 1878, and at that time found he had stone in the bladder. The patient afterward came in contact with an irregular practitioner, who promised to dissolve the stone. February 9, 1879, Dr. Wilmarth, of Orange, asked Dr. Keyes to operate upon the patient. It was difficult to make the latter believe that the stone still existed in his bladder. It was easily detected, but was found to have increased but little in size since the last examination. The operation for its removal occupied thirty minutes.

Dr. Keyes stated that he had now performed thirteen operations by Bigelow's method, and it seemed to him that each additional operation, each increase of experience in its performance, was an argument in favor of the method. He had not had a fatal case, and believed that Bigelow's method would be the one which would supersede all others for the removal of vesical calculi. In conclusion he called attention to the fact that difficulty was sometimes experienced in removing air from the bladder when it had been accidentally introduced from the wash-bottle. He had

accidentally discovered that by turning the bottle upside down the water rushed in, displaced the air at once, and the latter appeared at the bottom (now top) of the bottle above the water. The bottle then had to be refilled before washing was recommenced.

One advantage to be derived from the use of Bigelow's admirable washing-bottle was stated to be the facility with which the existence of small fragments of stone in the bladder could be detected during the washing by combining auscultation with the washing. The sharp click of the little fragments against the catheter as the water rushed in and out was very distinct. Dr. Keyes had used this method in place of ordinary sounding where a very small stone was suspected. He did not believe the necessity for using very large tubes existed. He had never used any tube larger than 30 French, the average being 27 French, 18 American scale. In over one-fourth of the cases there was no disturbance whatever following the operation, not even a chill. The average duration was three-fourths of an hour. Some patients had been subjected to it who would have died had they been operated upon by the usual methods.

The Society then went into Executive Session.

## NEW YORK ACADEMY OF MEDICINE.

### OBSTETRIC SECTION.

*Stated Meeting, January* 23, 1879.

DR. SALVATORE CARO, CHAIRMAN.

#### SUDDEN DEVELOPMENT OF APHASIA.

DR. CARO gave the history of a case of aphasia as follows. A lady, thirty-two years of age, married, and the mother of eight children; of a nervous temperament, and usually strong and healthy. Her husband, before marriage, contracted syphilis, underwent treatment, and was declared cured by the physician who attended him. He then married. After marriage there was a renewal of the disease, and it was communicated to his wife. Both were then treated, and both were declared cured. Both had a primary sore and roseola. There were no further constitutional manifestations of the disease. In the month of August last the wife was suddenly seized with aphasia. A physician was called, several remedies were employed, but the woman was not relieved.

Dr. Caro saw the patient in consultation, and to him the husband confessed that he had syphilis many years ago, and that he had communicated it to his wife. It was immediately suspected that syphilis was the cause of the aphasia, and treatment by the use of iodide of potassium was at once commenced. Improvement began at once, and apparently complete cure was effected within a few days. The treatment was continued for a short time, but the patient, becoming tired of it, ceased it altogether. In the month of December a second attack of aphasia occurred. The iodide of potassium was renewed, the aphasia quickly disappeared, but an eruption at once appeared upon the legs. It was thought to be due to the iodide of potassium, and the remedy was discontinued. The protoiodide of mercury was substituted, and the eruption disappeared.

#### INTERESTING FEATURE.

An interesting feature in the case, as well as in two others, was the following:

The lady was a Canadian by birth and spoke French fluently. But her dislike for speaking French was so great that she had scarcely used it for many years. When she had her attacks of aphasia, however, the *only words* which she could speak were *French*, and during the first two or three days of improvement she could use no language except the French. After that she dropped the French language entirely and employed the English, as previous to the occurrence of the attacks.

Dr. Caro had noted the same feature in an Italian patient, a man, forty-nine years of age. There was a syphilitic history early in life. The man had had repeated attacks of temporary and almost complete aphasia. The few words to which he could give utterance during the attacks were Italian, although for many years he had so neglected speaking his native language that he had almost forgotten it. It was with him also as with the French lady; in the early days of improvement, after the occurrence of an attack, he employed his native language exclusively.

The aphasia in the last case also yielded rapidly to iodide of potassium. In neither case was there any evidence of cardiac disease.

#### OVUM WITH MEMBRANES COMPLETE.

DR. BURRALL exhibited an ovum with its membranes complete. The woman had had several miscarriages. She ceased to menstruate on the 13th of September. She did not suppose that she was pregnant. In October she experienced severe pain, which made her suppose that the menses were returning, but nothing appeared.

On the 27th of December she received a slight strain while moving a barrel of ashes. That was followed by slight pain in the back and sanguinolent discharge, alternating with leucorrhœa, which continued until the 13th of January, when she had a chill apparently nervous in character. There were occasional pains in the back, and an anodyne was prescribed. The patient passed a restless night, and towards morning a mass was discharged from the vagina which proved to be an ovum with its membranes complete. The ovum was about three-fourths of an inch in length.

The Section then proceeded to the election of officers.

Dr. Salvatore Caro was elected Chairman, and Dr. Henry E. Crampton, Secretary.

## Correspondence.

### THE INDEX CATALOGUE OF THE NATIONAL MEDICAL LIBRARY—THE NEW HEALTH BILL.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The session of Congress just closed has been of great interest to the medical profession of the country, and a brief statement of the action taken upon some medical questions will no doubt interest many of your readers.

The printing and binding of the first and second volumes of the index catalogue of the library of the Surgeon-General's office has been authorized by a clause in the Sundry Civil Appropriation Bill, which appropriates twenty thousand dollars for that purpose. As the MS. for this work is ready, it will be sent to press without delay. As great care is necessary in proof-reading to secure the accuracy which is essential in a work of this kind, the printing can-

it be hurried, but it is hoped that the two volumes, ch of about 1,000 pages royal octavo, will be com-eted by June, 1880. Those who are interested in is matter should remember that the succeeding vol-nes have yet to be provided for by Congress.

The bill providing for the census of 1880 also sed. This bill is of interest to physicians, since it vides for the securing statistics of disease as well of mortality, and we may fairly hope, under its visions, to obtain some very valuable data as to relations of locality, occupation, age, race, and to the more important diseases.

Congress also passed a Public Health Bill, which is bill introduced by Mr. McGowan, of Michigan, h some modifications.

The history of this bill would form a very curious pter in the history of public hygiene in this coun-but it is too long to be given here. Suffice it to that the bill was supported and approved by the erican Public Health Association, and by the great jority of the leading sanitarians of the country. ras opposed by the Marine Hospital Service, and many of the advocates of a strong, uniform, na-al system of quarantine. The essential feature of bill, as urged by its friends, was that the United tes ought to encourage and aid State and local rds as much as possible, instead of trying to over-e and control them. To this end it was proposed t the United States should subsidize properly con-ucted boards by paying half their expenses, pre-ly on the principle adopted in the new census law, ich provides that when a State, in 1885, shall take nsus on the plan of the United States census, the ted States will pay half the expenses.

t will be seen that this feature was stricken from bill, but it is to be hoped that it will be restored he coming extra session of Congress.

Very truly yours,

JOHN S. BILLINGS, *Surgeon U.S.A.*

ASHINGTON, D. C., March 6, 1879.

# New Instruments.

## N IMPROVED APPLIANCE FOR FRACTURED CLAVICLE.

By C. L. PEIRCE, M.D.,

SAN FRANCISCO, CAL.

his work on "Surgical Operations and Appli-ces," concerning the treatment of fractured clavi-, Dr. Wales uses the following language:

"The indications of treatment are plain; the shoul-r must be carried upward, outward, and back-ard. The difficulties encountered in the treatment e not that these indications cannot be fulfilled tem-rarily with suitable bandages, but that sooner or ter the apparatus, of any description whatever, will come deranged or loosened while the patient is per-itted to move around, as he ordinarily is during the eatment, and thus the object in view—immobility the clavicle—will almost certainly be defeated."

Twelve years ago, while in general practice in Mas-chusetts, I realized the painful truthfulness of this atement. I was then called upon to treat the frac-ured clavicle of a fat little girl two and one-half ears old. I consulted the best works on surgery, but ith none of the different appliances could the little arm be permanently kept in a proper position. At last, almost in despair of success, I devised the appliance represented by the accompanying woodcuts. To my great delight, the most perfect results followed —the clavicle uniting without deformity. Since then this device has been frequently tested, not only in my own practice, but among professional friends, and always with the same happy results.

FIG. 1.

The appliance, as constructed for me by J. H. A. Folkers & Bro., of this city, consists of two rings, *b*, *b*,[1] made of rubber tubing, padded and covered with velvet so as to be easily worn. To one of these rings is firmly stitched two strips of *heavy* elastic ribbon (varying in length and distance apart, according to the size of the rings), and to the other ring is fastened two sets of buckles. A segment of this ring is finished so as to form an *axillary* wedge (Fig. 2). A strong linen sling with straps and buckles to make it fast, is made to fit the arm, with an opening at the elbow so that there may be no pressure on the olecranon. Strong strips of tape are sewed to the corners of the sling nearest the hand, while on the back part of the sling, just above the opening for the olecranon, a strong linen strap, an inch and a half wide, is stitched. A broader band to encircle the body completes the device, making only four separate pieces in all.

I usually apply the apparatus over the undercloth-ing. The rings being applied (the wedge ring on the fractured side), the shoulders are drawn back as far as they can be comfortably, and made secure by the elastics. Then the sling is buckled on, the arm being allowed to hang vertically beside the chest, as suggested by Dr. Hamilton, the suspensory tapes being fastened to the ring on the sound side, at the right length to allow this. The posterior strap is next passed obliquely across the back and buckled to the ring on the sound shoulder; the elbow meanwhile

should be pressed upward, and this strap fastened so as to take all the weight from the affected shoulder.

Lastly, the broad band is passed behind the oblique strap, through the loops on the arm-sling, around the body, and buckled so as to hold the elbow securely against the side of the chest.

FIG. 2.

This appliance is so easily adjusted that it requires not over five minutes to properly place it upon the patient, is easily worn, causing no chafing. It accomplishes every desired indication at the time of its application, and it cannot possibly "become deranged or loosened," although the patient has free use of the sound arm.

By the use of the strong elastic bands a constant tension is maintained; therefore the relative position of the parts, when once adjusted, cannot be changed. If unelastic bands were used here they would soon stretch, and the adjustment of the fractured parts would be disturbed.

In using my device the surgeon should be sure that the ring for the fractured side should fit closely around the shoulder; for if this ring is too large it will ride over on the fractured clavicle and defeat the desired object.

If this suggestion is carefully observed and the apparatus otherwise properly applied, it will be worn with comfort day and night, underneath the outer clothing, giving free use to the sound arm, and confidence to the surgeon that perfect results will follow. Figs. 1 and 2 represent a front and back view of the device as applied.

SAN FRANCISCO, CAL.

AN ANTIDOTE IN CARBOLIC ACID POISONING is dilute sulphuric acid, which combines with the phenol and forms the non-poisonous phenyl-sulphuric acid. Dr. Senftleben has used it with success. He gave 10 drops, diluted, every hour.

## A SUSPENDING APPARATUS FOR POTT DISEASE OF THE SPINE.

In the catalogue of H. Windler, of Berlin, pu lished in 1870, there is a plate of an apparatus f extension from the neck and arms in lateral or angul curvature of the spine. Shepard & Dudley have i ported one of these instruments, and, as the questi of treating deformities by extension is receiving much attention from the profession at present, a d scription of an apparatus with the plate may be

interest to the medical public. In a note from Mr. Windler, dated Oct 12, 1878, he states that the apparatus was originated by Glissen, is mentioned in 184 in a book written and published by Dr. H. E. Fritz, but without the sling for the arm. Who first added two arm-slings he does not know, but it was in his catalogue in 1870. The accompanying plate is a faithful representation of the sling. It has two compound pulleys, straps, buckles, to raise or lower either the neck-band or the arm-slings.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 2 to March 8, 1879.*

KING, WILLIAM S., Lieut.-Col. and Surgeon. His sick leave extended eight months, with permission to go beyond sea. S. O. 53, A. G. O., March 6, 1879.

HYGIENE VERSUS LONG TRAINS.—The municipal authorities of Prague have, at the request of the Board of Health, interdicted the wearing of dresses with trains in the public streets, on the ground that the dust raised by those appendages is injurious to health. In Algeria the clouds of dust raised by the incessant sweeping of the long skirts of the ladies produce on the legs, when bathed with perspiration, an irritating pruritis and eruptions which are only partially relieved by baths and a scrupulous attention to cleanliness.

# Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.— Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending March 8, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| Mar. 1, 1879.. | 0 | 3 | 173 | 1 | 12 | 32 | 0 | 0 |
| Mar. 8, 1879.. | 0 | 4 | 198 | 2 | 1 | 52 | 0 | 0 |

MEDICAL GRADUATES OF CHICAGO.—At the recent commencement of Rush College 122 diplomas were bestowed; one was honorary degree. The Chicago College graduated thirty-eight on the 4th inst.; two received the honorary degree of "M.D.," and one that "Ph.D." The Women's Hospital College had a graduating class of five.

The Rush alumni banqueted at the Tremont House, and reorganized their association. The Chicago alumni banqueted at the Palmer.

One of the graduates of the Women's Hospital College—Miss Moegler—has been successful in winning, by competitive examination, a place as Interne to the County Insane Asylum. This is the first appointment of a lady to a hospital position in Chicago, except where men have been excluded from competition.

THE POPULATION OF THE GLOBE.—The last number of Petermann's *Communications Géographiques* contains fresh estimates of the population of the globe. According to recent researches, the population now numbers about 1,439,137,980 souls. This figure, however, is only approximate to the truth, as in the cases of many countries, particularly China, Africa, Australia, and Polynesia, exact data are wanting. Europe has 312,398,480 inhabitants; Asia, 831,000,000; Africa, 205,210,500; Australia and Polynesia, 4,413,000; America, 86,116,000. It is an average of 500 inhabitants for every square mile of the surface of the globe.

After having estimated the number of men existing on the earth, the German statisticians next turned their attention to the equine race. The number of horses at present existing on the globe, exclusive of China and Japan, seems to be about 58,000,000. Of this number the contingent of Russia is about 17,750,000; that of the United States, 9,504,000; of the Argentine Republic, 4,000,000; Germany, 3,352,000; France, nearly 3,000,000; Canada, 2,264,000; Great Britain, 2,225,000; Hungary, 2,179,000; Austria, 1,367,000; Turkey, 1,100,000, etc.

ACTION OF THE BLATTA ORIENTALIS.—The blatta orientalis, or common cockroach, is a popular remedy in Russia. The researches of Bogomolow have given the following results from its employment: The quantity of urine is increased; the quantity of albumen diminished; œdema and ascites disappear; the weight of the body diminishes; the perspiration is generally increased; digestion is not impaired; the kidneys are not irritated. The dose employed was four and a half grains of the powder obtained from the dried insect. These results were confirmed by Unterberger, who employed the drug with great success in scarlatinal albuminuria. M. Koehler has also employed it in thirteen cases of dropsy of various origin. His results were sufficiently conclusive, and show that the blatta orientalis really possesses remarkable diuretic powers. Its most interesting action, however, is its power to cause a rapid disappearance of the albumen from the urine. Hence it is not a simple diuretic, and its true field of action should be sought in Bright's disease. It seems to be entirely innocuous.—*Jour. de Méd. de Bordeaux.*

TREATMENT OF ULCERS OF THE CERVIX UTERI BY CREASOTIC GLYCERINE.—Dr. Mendelssohn, of Bildah, Algeria, speaks very highly of creasotic glycerine in the treatment of non-specific ulceration of the cervix. His formula is: pure créasote, 2 grammes (ʒ ss.); glycerine, 50 grammes (ʒ xiijss.); alcohol, 25 grammes (ʒ vj.). He applies it every day or two to the ulcerated surface by means of a soft brush. He has treated with this application 28 cases of simple ulcer or erosion, 7 cases of fungous and granular ulcer, and 2 of chancroid ulcers of the first class; 26 were cured and 2 only improved. The average duration of treatment was 12 days, though in two of the cases the applications were continued for 30 days. In 8 of these 28 cases the ulceration was due to metritis with abundant leucorrheal discharge, and these were the cases which proved most rebellious to treatment. Of the second class, six cases were cured and one improved, the average duration of treatment being 17 days. In the two cases of chancroid ulcer the treatment was continued respectively for 30 and 40 days, but the results were entirely negative.—*Gazette Obstétricale.*

AMERICAN VETERINARY COLLEGE.—The fourth annual commencement of the American Veterinary College was held March the 5th, at Lyric Hall, before a large audience. The degree of Doctor of Veterinary Surgery was conferred on the following graduates: O. D. Carman, of New York; Charles C. Cattanach, of New York; Thomas J. Herr, of New York; William H. Kleindoff, of Pennsylvania; W. B. E. Miller, of New Jersey; R. A. McLean, of New York; T. B. Rogers, of New Jersey; John J. Smith, of Pennsylvania; Th. Outerbridge, of West Indies.

R. A. McLean secured the alumni prize for the best general examination, the prize of the New York State Veterinary Society for the best practical examination, and the prize for the best examination on surgical pathology. J. B. Rogers received the prize of anatomy, consisting of a case of surgical instruments; and D. Light, of the junior class, was awarded a silver medal for the best anatomical examination. Professor James Law, of Cornell University, delivered the address to the graduates.

MEDICAL DEPARTMENT OF UNIVERSITY OF IOWA.—The Ninth Annual Commencement of the Medical Department of the State University of Iowa took place at Iowa City, Wednesday P.M., March 5, 1879. Fifteen candidates received the degree of Doctor of Medicine. Mr. Fred. H. Little, of Muscatine, delivered the Class Valedictory. The degrees were conferred by His Excellency Governor John H. Gear. The Faculty address was pronounced by President J. L. Pickard. The Medical Department has established a graded course of study, which has been in operation for three years, and is showing most valuable results.

FEMALE PHARMACISTS IN HOLLAND.—In 1865 a Mlle. Tobbe, the daughter of a deceased physician of Zaandijk, Holland, petitioned for permission to inscribe herself as apprentice in pharmacy, but was re-

fused on the technical ground that the existing law employed only the masculine pronoun in speaking of the course of instruction for such apprentices. In the following year, however, a law was passed admitting women as well as men to all the examinations for the degree of pharmacist, and already over one hundred ladies, many of them daughters of country physicians or of pharmacists, have taken advantage of the law, and been inscribed as apprentices in pharmacy. The matriculating or introductory examination that must be passed previous to this inscription is pretty severe. It comprises the Dutch language, arithmetic, latin, the reading and explanation of written and printed prescriptions, the theoretical knowledge of drugs, the recognition of simples by their external qualities, the origin of drugs, their scientific denominations and their synonymes, and the preparation of prescriptions. It is a striking fact, and one not altogether flattering to the stronger sex, that since the above law went into operation, the number of male candidates who failed to pass this introductory examination was, relatively speaking, double that of the rejected female candidates. The female apprentices are much sought after in the larger cities of Holland, and are even to be found in the public dispensaries, where they are preferred to men, on account of their greater habits of order, cleanliness, and exactitude.

TREATMENT OF TAPEWORM.—Fleischmann employs the following method for the removal of tænia mediocanellata. No preparatory treatment is required. The child is given a bowl of milk for breakfast, and one hour afterwards ten of the following pills are administered: ℞. Extr. punic. granat. rec. præp., extr. filicis mar. æther., ää grs. xxxviij.; pulv. punic. granat., q. s. ut fiat massa, div. in pil. No. 40. The dose of pills is repeated twice, at intervals of half an hour; if one of the doses be vomited, the last ten pills are administered. Between the doses lukewarm tea or lemonade is given to hasten the dissolving of the pills and to counteract nausea, if it should exist. At the end of three or four hours a dose of oil with beef-tea is administered, or, instead of it, half of the following mixture: ℞. Extr. punic. granat. (or filicis mar. æther.) grs. xxxviij.; Ol. ricini, mucil. acaciæ, ää ʒ ijss.; aq. menth. pip. ʒ i. M.—*Deutsche Medic. Wochen.*

TREATMENT OF OBSTINATE VOMITING BY SMALL DOSES OF IODIDE OF POTASSIUM.—Dr. Formica Corsi states that he has cured with this drug cases of persistent vomiting that proved rebellious to the usual methods of treatment, and that he has known it to be equally successful in the hands of other practitioners. He cites the case of a woman who was suffering from typhoid fever and was at the same time in the second month of pregnancy. The vomiting resisted all the known anti-emetics. Finally he ordered a teaspoonful, every hour and a half, of a mixture consisting of half a grain of iodide of potassium in three ounces of water. On the following day the vomiting ceased.

Dr. Giné confirms this statement concerning the anti-emetic properties of the drug, and states further, that, when given in doses of one-sixth to five-sixths of a grain per diem, it possesses decided laxative qualities.—*Gazette Obstétricale.*

TREATMENT OF PSORIASIS VULGARIS.—Dr. Tichomirow reports a case of pronounced psoriasis vulgaris diffusa in a boy ten years of age, that was cured by subcutaneous injections of arsenious acid. The eruption was very marked, and was spread over the entire body. At the commencement of the treatment $\frac{1}{48}$ grain of arsenious acid was injected daily, and the dose was gradually (every three or four days) increased, until $\frac{1}{24}$ grain was administered pro die. After the sixth injection the scales began to fall off; when about one grain of the acid had been administered the infiltration of the skin began to diminish, and after a few warm baths and inunctions with oil the entire surface of the body was cleared of the scales. Hebra's modification of Wilkinson's salve was then employed in connection with the injections. When about $3\frac{1}{2}$ grains of the acid had been used, no trace of the disease remained beyond a slight hyperæmia of the affected spots. The treatment was then discontinued for fifteen days, and again resumed on account of a return of the disease. Finally, after five months of treatment, during which $4\frac{1}{2}$ grains of arsenious acid had been administered, the cure was complete.—*Allg. Med. Cen. Zeit.*

SULPHATE OF COPPER IN SKIN DISEASES.—Dr. J. Dell Orto (*L'Independente of Turin*) has come to the following conclusions:

1. Sulphate of copper is very useful in diseases of the skin produced by deficiency of nutrition or poverty of the blood, such as pellagra, scrofula, chlorosis, etc.

2. Its trophic action is rapid, constant, and innocent.

3. It is best administered in pills in progressive doses, from one or two to seven centigrammes a day.—*New Orleans Med. and Surg. Journal, Dec.*, 1878.

CHOLAGOGUES.—On the authority and experiments of Dr. W. Rutherford, F.R.S., dilute nitric acid, physostigma baptisin, phytolaccin, ammonia benzoate, ammonium phosphate, sodium salicylate, all stimulate the action of the liver. Menispermin and veratrium has a stimulating action upon the intestinal glands only.

CHARCOAL FOR BURNS.—A retired foundryman claims that powdered charcoal—from pine wood is the best—thickly sprinkled over the burned or scalded surface, and renewed as soon as it falls off, is a never-failing, grateful, and speedy remedy. It relieves pain and heals as if by magic.

DISSECTION.—London is complaining of the paucity of subjects for dissection.

PITURI, prepared from a plant growing in Australia named *Duboisia Hopwoodii*, is said, by Drs. Sidney Ringer and Murell, to be slightly narcotic and closely allied to atropia, to first salivate, then dry the secretion, and dilate the pupil. They claim that its more prominent effects resemble gelseminum and jaborandi.

## BOOKS RECEIVED.

ATLAS OF HUMAN ANATOMY, with Explanatory Text, by Prof. Dr. C. E. Bock (Leipsic). Containing thirty-eight colored plates of the bones, muscles, vessels, and nerves of the human body, organs of sense—eye, ear, tongue—respiratory apparatus, abdominal and pelvic viscera, organization of fœtus, the teeth, and the genito-urinary organs of the male and female. Folio. Cloth. New York: William Wood & Co., 1879.

WOOD'S MEDICAL LIBRARY OF STANDARD MEDICAL AUTHORS. No. III. A Clinical Treatise on Diseases of the Liver, by Dr. Fried. Theod. Frerichs, Prof. Clin. Med., Univ. Berlin. Vol. I., translated by Chas. Murchison, M.D., F.R.C.P. 8vo, pp. 224. New York: William Wood & Co., 1879.

# Original Communications.

## ON "RAPID LITHOTRITY WITH EVACUATION"—"LITHOLAPAXY" OF BIGELOW.

### WITH A SECOND SERIES OF CASES.

By W. H. VAN BUREN, M.D.,

PROFESSOR OF SURGERY, BELLEVUE HOSPITAL MEDICAL COLLEGE.

In September last I published in the RECORD six cases of stone in the bladder, treated by the new method. I have now to add a summary of seven additional cases which have since passed through my hands. Their uniformly successful result tends to confirm the favorable estimate already assumed of the superior safety and effectiveness of the American modification of the operation of lithotrity. The value of Prof. Bigelow's discovery of the hitherto unsuspected tolerance by the bladder of the judicious use of the lithotrite and washing-bottle, when this organ is at the same time entirely freed from calculous matter, is becoming gradually apparent.

In the following cases, which have been taken as they presented themselves in private practice, without selection, there has been no serious reaction in any instance; atony has not been caused, nor aggravated when already present, nor has any serious drawback been encountered. The manipulations have been conducted deliberately and with great gentleness, more attention having been given to entire removal of the fragments than to the time employed, which, as confidence in the new method is gained and facility in detail acquired, can certainly be shortened.

CASE I.—R. M., Esq., æt. 63, of New Orleans, consulted me in October, 1877, with a history of atony, requiring the catheter since the previous July, and more recently of bloody urine after horseback exercise. Some vesical irritability since 1850. Examined for stone by Reliquet, in Paris, in 1876, with negative result. I found some enlargement of prostate, and a rough movable stone more than an inch in diameter. Mr. M. could not remain in New York, and was subjected to lithotrity elsewhere, but never got entire relief, though passing much calculous matter after the several crushings to which he was subjected.

In August, 1878, he returned with very frequent and painful calls, and turbid ammoniacal urine, and I recognized several calculous masses in the bladder by the searcher.

On September 2d seventy-two grains of mixed urates and phosphates were removed in forty-five minutes. The bladder was distinctly trabeculated, and the manipulations were conducted with great care. There was no chill or increase of temperature, and prompt relief followed; the urine became acid and comparatively clear, and the intervals longer. After a final search he left for home on the 12th of September, holding his water four to five hours, having been instructed to evacuate and wash out the bladder in the morning with the borax and glycerine solution, and at night with water acidulated by nitric acid. Subsequent reports have been entirely favorable as to permanency of cure.

CASE II.—F. H., Esq., æt. 58, brought by Dr. H. S. Downs, of Bleecker Street, September 28, 1878, with symptoms of stone for the last three years, occurring in paroxysms. Gets up now four times at night; calls more frequent during the day. Urine acid, nearly clear. Stone smooth, hard, solitary. Operation on October 2d. The stone was caught by the largest Thompson lithotrite, which marked a diameter of one and three-eighth inches, and it required more than my unaided strength of hand to crush it, but it finally gave way with quite a report. After three or four fragments had been crushed, Dr. Keyes completed the operation with his modified Thompson's instrument. Whole time, forty-two minutes; weight of débris, dried, 239 grains of nearly pure uric acid. Mild reaction followed, with some blood and pus in the urine, more frequent calls, and a slight epididymitis. These symptoms subsided gradually after the first week, and entire recovery followed. The patient remains well at this date.

CASE III.—A healthy girl, in her eighth year, was brought to me by Dr. Morje, of East 71st Street, October 3, 1878, accompanied by her parents, who gave an account of bladder symptoms of a year's duration, which occurred in paroxysms; and of a confession by the child that fourteen months before she had introduced a hair-pin into the privates and lost it. I recognized by the searcher an immovable foreign body of some size, which gave the sensation of an irregular calculous mass in the bladder.

On the 9th of October, under ether, the mass crumbled readily in the grasp of a lithotrite, but a long smooth body, the ends of which seemed fixed in the lateral walls of the bladder just within its orifice, remained between the jaws of the instrument, and could not be dislodged without more force than seemed justifiable. Gentle manœuvres with the several instruments contrived for the removal of hair-pins, aided by the little finger in the vagina, failed to free the extremities of the foreign body, and we finally succeeded by forcible traction upon its middle by means of a polypus forceps, in withdrawing a hair-pin of ordinary size, much bent, and still showing traces of phosphatic calculous incrustation. The fragments which remained were then crushed and pumped out by the washing bottle, the urethra having been dilated to admit the evacuating tube. The crushing and evacuation was attended by slight delay, for the bladder was found to be somewhat puckered and distorted in shape by the plastic exudation provoked by the extremities of the foreign body.

The child recovered promptly, without any bad symptoms.

CASE IV.—Mr. J. C. P., æt. 57, was brought to the city on the 9th of December, 1878, by his physician, Dr. Frank Paddock, of Pittsfield, Mass., who had recently discovered a stone in his bladder, explaining symptoms of many years' duration, which had latterly become urgent. I made out the existence of atony to the extent of half a pint, and the presence of two calculi, one a half inch in diameter, and another, struck whilst the first was in the jaws of the exploring instrument, a good deal larger. The urine was not very murky, and the kidneys were healthy.

On the next day Mr. P. was etherized, the stones crushed, and 136 grains (of mixed urates) evacuated in forty minutes. There was no chill or febrile reaction, but the urine contained some blood and mucoid pus for five or six days, and at first the calls were quite frequent. After this he improved steadily, and, having been taught to use the catheter and fountain-syringe systematically, returned home on the twelfth day.

On the 11th of February Mr. P. came to the city for a final examination. He was entirely free from pain, holding his water from three to eight hours, and gaining flesh; a careful search of the bladder discovered no calculous fragments. Residual urine about eight

ounces—the same as before the operation. Directed to use tar-water with his daily injection.

CASE V.—Mr. P. J., æt. 51, a hyperæsthetic person, with enlarged knuckles, who has suffered from bleeding piles, but is otherwise healthy, has suffered from frequent and painful calls to urinate for four years, and his symptoms are increasing in urgency. Has had numerous attacks of renal colic. Is disturbed three or four times at night and much more frequently during the day.

A large, movable calculus was recognized, and, his urine showing but little pus, and no casts or sugar, he was subjected to rapid lithotrity on the 15th of January, 1879. The calculus measured an inch and a half, and the bladder was cleared within the hour, the débris, consisting of buff urates, weighing 360 grains. He was unable to pass water for about twenty-four hours, apparently from swelling of the deep urethra, for there was no atony; no chill; temperature reached 101.2°, and the pulse 108. The Jaques catheter passed readily. Urine slightly bloody until the 19th, after the first stool. The intervals gradually increased, and pain went away. On the seventh day Mr. J. walked out, and shortly afterwards started on a trip to the South for the benefit of his general health. On the 24th he visited me in improved health. Bladder examined and found free from calculous matter, and not sensitive. No atony. Advised to wash out every other day until the urine becomes bright. Mr. J. sleeps all night, but urinates every two to four hours during the day, mainly from habit and nervous irritability.

CASE VI.—Mr. C., æt. 51, sent by Dr. R. J. Carroll, of Red Hook, N. Y., January, 1879. A rather delicate person, much shattered by the constant pain and urgency in micturition, from which he has suffered more than three years, and by the recent use of narcotics. He has had several attacks of renal colic, and his urine, which contains a good deal of pus, is voided with much suffering about every hour. I found a movable calculus, not too large, and an oversensitive but full-sized urethra, and advised rapid lithotrity. As he preferred to have the operation performed at home, this was done on the 28th of January by Dr. Keyes, assisted by Dr. Carroll and Dr. L. A. Stimson, 260 grains of grayish-pink urates being evacuated in thirty-five minutes. On the 31st Dr. Carroll reported favorably of the patient's condition and progress. There was some bloody urine following the operation, but no serious febrile reaction, and no retention.

CASE VII.—Mr. J. McG., of Newark, N. J., æt. 54, first consulted me in November, 1877, for paroxysms of frequent and painful micturition, with pain at the meatus. Rarely gets up at night. Urine clear; sometimes bloody. Prostate rigid and slightly enlarged; a smooth, hard, movable stone detected in the bladder. Lithotrity advised.

The patient yielded to delusive hopes of cure by medical means, and did not finally submit to operation until urged thereto by Dr. Willmarth, of South Orange, with whose assistance Dr. Keyes, on the 12th of February, 1879, evacuated 127 grains of red urates and uric acid, in thirty minutes. The reports since indicate no trouble after the operation, and the promise of a satisfactory cure.

In the *London Lancet* of February 1st, 1879, Sir Henry Thompson, speaking of the new operation in a reported lecture, confesses "that the proposition to remove a large, hard stone at one sitting is an attractive one," but he recoils at the "large and heavy lithotrites" at first employed by Bigelow. I say *at first*, for although the superior advantages of powerful instruments for litholapaxy are recognized, they have since been made much lighter; and Dr. Keyes and I have never used any other than "the comparatively small but strong" lithotrites described and employed by Thompson himself—*but modified so as to work successfully for an indefinite time in the bladder without clogging*. This great advantage of the instruments employed for litholapaxy in America is passed *sub silentio* by the English lithotritist. He "prefers to employ," as he tells his students, "in every case, two lithotrites alternately, handing the first when withdrawn full of débris to my assistant, who clears it out completely while I am crushing with the other, which, in its turn, is cleaned, and again used." Now, with all respect, I claim that this method, subjecting the parts, as it certainly does, to injury by the repeated withdrawal of a lithotrite full of débris, is inferior to the operation as performed in America. In none of the cases I have here recorded was it necessary to withdraw the instrument in consequence of clogging; and in one of them, where the stone was very large and hard, the Keyes' lithotrite was worked actively and uninterruptedly for twenty minutes, and came out perfectly clean. I have no doubt that the Bigelow instruments are equally efficient in this respect.

Sir Henry's principal objection to the American operation, that the original Bigelow instruments were "enormous and unwieldy" is therefore not tenable; even if it were, it would be fairly counterbalanced by their superiority in not requiring withdrawal for cleaning during an operation.

The length of time consumed in the earlier operations by the new method is also criticised, and justly; but this is not a fault of the operation—rather of the operators; no living lithotritist beside the critic can be held responsible for a dexterity acquired in treating 422 cases of stone by the crushing operations.

In the *Lancet* of the following week, February 8, 1879, the leading editorial is devoted to the subject of "rapid" lithotrity. The writer, alluding to Clover's apparatus for evacuating fragments from the bladder, says "this practice has not been very extensively adopted. Sir Henry Thompson, for instance, opposed it, except in unusual cases, on the ground that the removal of the detritus by the aspirator caused as much irritation as the crushing by the lithotrite, and that repeated injections, which change rapidly and considerably the volume of the bladder, always irritate the organ."

The writer adds, subsequently: "We confess it was not without some surprise that we found Sir Henry Thompson, in a lecture published in our columns last week, in referring to Professor Bigelow's proposal, saying: 'I am bound to say that my own system has for a long time past been gradually inclining to the practice of crushing more calculus at a sitting, and removing more débris by the aspirator than I formerly did.'" "This," continues the editor, "is an important confession, and involves the abandonment of his old position. For some time to come lithotrity may be practised under the new and seemingly harsher conditions [of litholapaxy], and months or even years must necessarily elapse before the surgical world can be in possession of sufficient data for a definitive judgment. Meanwhile we shall watch and wait."

It is evident from these quotations that the American modification of lithotrity is commanding attention abroad; and, in the change of base attributed to Sir Henry Thompson is to be recognized an acknowledgment of the superiority of Professor Bigelow's strategic position.

## SOME REMARKS ON TYPHO-MALARIAL FEVER.

By C. B. WHITE, M.D.,

SURGEON, U.S.A.

(Read Feb. 27, 1879, before the Central Ohio Medical Association.)

Dr. Meredith Clymer, editor of the American Edition of Aitken's Practice of Medicine, gives this fever the following definition (p. 509, Vol. I.):

"An idiopathic fever of mixed type, caused by a combination of paludal and pythogenetic influences, with marked remissions and exacerbations at the beginning, and, after a variable period, becomes continuous; attended with early prostration, diarrhœa, and subsequently extreme adynamia; the characteristic lesion is enlargement and ulceration of the solitary intestinal glands."

He further explains that this disease first claimed notice in 1862, as the "Chicahominy fever," and occurred among men "saturated with paludal poison, exhausted by over-exertion and insufficient rest, imperfectly nourished, exposed to the action of animal effluvia from the decaying bodies of both men and brutes, and drinking water impregnated with the products of common putrefaction," and that the name was proposed and first used by Dr. J. J. Woodward, U. S. A.

Woodward's "Camp Diseases" (p. 40), speaking of "malarial cachexia," describes it as "manifested by a sallow or yellowish complexion, generally accompanied by more or less emaciation, with disturbed bowels, disordered appetite, yellowness of the conjunctiva, torpor of the intellectual functions, debility, and a disinclination to exertion of every kind."

The same author describes forms of typho-malarial fever in which the malarial, typhoid, or scorbutic elements, severally, may predominate; and on page 79 says:

"These early stages of the disease, moreover, are frequently accompanied by the icteroid hue, the gastric tenderness, the nausea and vomiting of remittent fever." He mentions earlier, "These cases generally begin with a more or less decided chill, followed by fever."

Headland's "Action of Medicines," art. Quinine (p. 357), says:

"Quinine is also serviceable in gout, scrofula, dyspepsia, and other disorders, in all of which other medicines which stimulate the secretion of the bile are more or less applicable. Torpidity of the liver is likewise a usual accompaniment of the various forms of debility, and occurs in intermittent, remittent, typhoid and yellow fevers, in each of which this medicine has been recommended and used with advantage. It fact, it may be said that *in all diseases in which quinine is used, there is a failure in the secretion of bile, and in all diseases in which there is a failure in the secretion of bile quinine is* SERVICEABLE. There appears to be some connection between these two things." [Italicized by present writer.]

It was the writer's fortune to serve with troops in the Southern States of America from 1861, with only slight interruption, to 1868, and he can expressly, from his own knowledge, confirm the statements of Drs. Clymer and Woodward in reference to the fever they treat of. His experience in the Scioto Valley, during 1878, recalls vividly much of our sufferings in 1862, near Richmond, Va. The malarial cachexia and congestion of the internal organs, named by Drs. Woodward and Headland, came upon him so insidiously during the winter of 1877–78, as to warp his judgment and benumb his intellectual faculties before he was aware of it; and the first case of typho-malarial fever under his care (his own child) died of the disease. Some writers and teachers have endeavored to ignore the existence of a compound fever, typhoid in form and malarial in character; but in the present writer's opinion they are mistaken. They lay much stress on the fact that quinine, in many of these cases, seems to have little or no remedial effect; that proves nothing, for in some cases of congestive chill (plainly malarial) quinine is equally inefficacious; in both series of cases the remedy may be administered too late, or there may be at work toxic forces that more than neutralize its good influence. Further than this, quinine, even when administered judiciously and in good time, does not always cure common intermittent fever, recourse being necessary to combinations with arsenic, iron, nux vomica and salicine, or the use of these remedies severally or combined with simple bitter tonics; removal from the district is sometimes the *only perfect remedy.*

Dr. Headland's statement in regard to internal congestions as caused by malaria is pregnant with suggestive thoughts, and affords a most rational explanation of the icteroid hue of skin, nervous headache, constipation of the bowels, and loss of appetite so constantly noticed in especially unwholesome seasons or in unfavorable circumstances, in certain malarial districts. The old plan was to purge freely in these cases and to use calomel; and even so recent a writer as Waring (Therapeutics, p. 539) says of the action of quinine as an anti-periodic:

"It is necessary to ascertain by careful examination that no hepatic or visceral disease exists; such complications rendering the remedy not only inert, but injurious."

He further quotes Dr. Eyre (Indian Service), "that he often found quinine fail, and that he has never seen it otherwise than injurious when there exists a disordered state of the primæ viæ."

While it may not be judicious in cases of obstruction of the bowels to use LARGE doses of quinine, without laxatives to co-operate, still tonic doses, especially combined with tartrate of iron and potash, or the tincture of the chloride of iron and a little strychnia, will never do any harm, but much good in malarial constipation.

A certain proportion of the Chicahominy cases had persistent diarrhœa, and it was noticed that these were less liable to result fatally, unless the discharges were too long neglected and diet unattended to (support being necessary); some of the diarrhœas then contracted, remained for years after, affecting the subjects at irregular intervals, but making the bowels habitually loose and serving their owners a good purpose when exposed to Asiatic cholera and yellow fever (in both of these diseases the writer has found previous constipation a serious complication, and very possibly causing a predisposition thereto).

During the seven days in front of Richmond, in 1862, while there was a strong pressure on medical officers to excuse men from duty for malarial cachexia only, a corporal of artillery reported at sick call, very yellow in complexion, and having headache and constipation of the bowels. By reason of his indomitable courage and devotion to duty he declined being excused, merely wanted medicine, and the next day *died while his battery was in action.*

Similar cases of malarial congestion have been known to the writer, during the past year, in Ohio, *also resulting fatally*, in which the icteroid hue and the constipation were the chief symptoms.

CAUSES FOR THE MALARIAL OUTBREAK OF 1878.

It is a well-known fact that, as various parts of our country have become more thickly settled and consequently better drained, and the houses as well as clothing and diet of the inhabitants more comfortable and better adapted to their needs, malaria, as shown in its concentrated forms of "congestive chill" or malignant intermittent fever, becomes almost unknown; a milder form being substituted, showing itself openly in well-marked chills, with but little interference usually with the nutrition of the subject. Still later in a district's progress, come well-marked enteric fevers, accompanied by the characteristic eruption and bowel symptoms, including frequently severe hemorrhages. But when a mild winter occurs, like that of 1877–78, malaria germs are not destroyed to the usual extent, and with the first warm days of spring alternating with frosty spells, there occurs an outbreak of a low form of fever, accompanied with some inflammation of the air-passages (bronchitis or lobular pneumonia usually), and we have, at a most unusual and unexpected time of year, a disease to contend with, typhoid in form and malarial in character, peculiarly liable to affect children who may be outgrowing their strength or poisoned by unwholesome effluvia around school-houses, and young people exhausted by continuous mental and bodily effort, consequently careless of their diet and peculiarly open to morbific influences, as well as people of all classes reduced in health or weakened in strength. A further addition to the sufferers by this disease are those who, already exposed to malarial influence, meet with some great disappointment that weighs on their spirits and diminishes their vitality; there is probably no disease known, except Asiatic cholera, in which depression of mind so favors the accession.

Some popular writers have wished to claim, on behalf of the dwellers near unsightly and unwholesome piles of animal ordure, collected on farms for fertilization purposes, that their good health is a proof of the harmlessness of such exhalations: this cannot be the case, and the immunity is no doubt due to the larger amount of fresh air obtained in these cases, probably also to the fact that these substances are actually less injurious than the effluvia arising in cities from dejecta of human origin.

To further prove that nothing offensive can be wholly harmless, it seems to be now extensively believed that "hog cholera" is a typhoid fever, brought about by over-crowding, exposure to violent variations of temperature and to the effluvia of the animal's own dejecta; and its effects best combated by better care, separation, and a change of food: a recent newspaper paragraph states that feeding swine affected by it or predisposed to it, with charred or partly burned corn, has had a most excellent result, which seems reasonable, as we know the good effects of charcoal in various affections of the digestive tract.

Since the writer's residence near Columbus he has had occasion to notice the prevalence of south-westerly winds, which blow back into the city the gases contained in the sewers (these latter emptying in a south-westerly or westerly direction into the Scioto River), which is an unfortunate circumstance as affecting local hygiene. Another circumstance peculiarly unfortunate is the damming of the river at Columbus, for feeding certain canals; flowing water absorbs much injurious material, and the more rapidly it flows the better for all living near it. During the civil war our medical officers constantly noticed the benefits of a camp near a flowing stream as diminishing the effects of surrounding malaria; especially did we find the neighborhood of the turbulent, seething, irresistible masses of the Mississippi River water useful to our health and well being.

Typho-malarial fever does not seem to be so directly infectious as true typhoid fever, but there appears to be no doubt that it is directly promoted and its virulence increased by the presence of sewer gases, decaying matters, defective drains and other unwholesome influences; all such causes had more material and better opportunity for their effects in the following mild winter of 1877–78.

The fruit crop of 1877 was notably a deficient one, and both fruit and vegetables did not keep as well, nor were as wholesome in the mild winter following as in usual seasons; and the spring of 1878 was notably behindhand in bringing us early fruits from distant markets. The fruits of the earth are both useful in acting directly on the bowels and as stimulating, as a relish, an appetite for other articles of diet, and their absence or scarcity must always act injuriously.

PECULIARITIES OF THE RECENT DISEASE.

In 1878 this continued fever often began with distinct chills, marked by repeated perfect intermissions, and in some cases the chills were apparently "broken" by the exhibition of anti-periodic medicine; still, after a variable interval of comparative health, usually three or four days to one week, a low form of continued fever came on, accompanied by moderate delirium, entire loss of relish for food, little thirst, but much heat of skin and derangement of the digestive organs; diarrhœa was not constantly present, not even in the less congestive cases.

In some of these cases abortion seemed to occur, the disease not running a full course; but in others there followed, even after a slow convalescence, sequelæ of continued fever, such as chronic conjunctivitis, inflammations of the joints, and deafness; accompanied with unusual paleness and great debility, as long-continued as after the ordinary enteric fever.

Dr. Woodward mentions the lesions of the bowels as affecting the ileum. During the past year I have noticed ulcerated patches as more usual and more frequent in the colon; perhaps very few spots in the small intestine, and in the large intestine large and frequent ulcerations. I should not give this so important a notice, but on consultation with Prof. Loving of Columbus, a careful and conscientious observer of large experience, he states that he believes ulcerations of the large intestine to be a distinguishing mark of this disease, and exhibited preparations illustrating this pathological view.

PROPHYLAXIS AND TREATMENT.

As a means of guarding against any low form of malarial fever, removal from the locality is probably the best. And in combating such disease, iron in some of its forms, combined with quinine or with arsenic, seems the most efficient preventive. After the occurrence of the disease alcoholic stimulants and easily assimilated food and tonic doses of quinine seem to do the best. To reduce the temperature, should the milder treatment prove inefficacious, moderate doses of quinine, repeated at intervals, should have a fair trial; it does not follow because the exhibition of excessive doses has apparently been injurious, that we should discard this remedy. The opinion of the profession in this country seems to be opposed to the cold pack and cold bath, as recommended by Prof.

Liebermeister in ordinary typhoid fever (Ziemssen's Practice, Vol. I.); but the success of sponging seems to indicate its value, and it seems as if this system should have a fuller though careful trial even in typho-malarial fever.

Except the administration of larger doses of antiperiodics than is necessary in true typhoid fever, the indications for precautions and for support and treatment are the same. It seems to be a disease more controllable by preventives than the ordinary enteric fever, but when it does occur in an unmodified form it has the same deadly and long-extended course as its better known congener.

In treating this disease the practitioner must be on his guard against the long continued fainting-fits that so often occur in it, and strong spirits of ammonia for inhalation and extra quantities of strong spirits of wine (properly diluted) should be kept constantly at hand and the nurse instructed to use them freely. It is not considered possible to give a typhoid fever patient, even if a child, so large a quantity of wine or brandy as to do any permanent harm.

Further, in this great debility and with life hanging as by a thread, the head should not be raised, medicaments and food being given by spoonfuls or through a tube.

COLUMBUS BARRACKS, OHIO, Feb. 24, 1879.

## ANTISEPTIC SURGERY.

BY FANEUIL D. WEISSE, M.D.,

PROFESSOR OF PRACTICAL AND SURGICAL ANATOMY, MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

IN the MEDICAL RECORD of March 1st, 1879, appears a well-timed editorial résumé and digest of the present status of so-called antiseptic surgery.

Being firmly imbued with the importance of keeping constantly in mind that germ-laden air produces, by inducing the putrefactive process in a wound, the constitutional sequelæ of surgical fever and septicæmia, I cannot refrain from forwarding to your excellent journal the following reflections upon the analysis of the five methods of antiseptic surgery now in use.

The writer of the article says:

"The two disturbing elements preventing primary union are: 1st. Tension from effusion of blood or serum, causing separation of the edges of the wound. 2d. Inflammation and suppuration, followed by putrefaction and secondary phenomena, which we designate as surgical fever, pyæmia, and septicæmia." In closing, the writer gives this as his conclusion upon Mr. Lister's method: "If we were called upon to decide what was the most important element in Mr. Lister's dressing, we should say that it was his system of drainage, and to this, more than anything else, must be attributed his success."

Free drainage, as a factor in guarding against the first disturbing element, preventing primary union, is self-evident. Of its influence on the second, it seems to me that inflammation and suppuration would be produced by tension of retained fluids—a condition which would undoubtedly defeat primary union; but if these fluids, as effused, were guarded from the access of germs from the air, they would never undergo putrefaction.

I would regard the sequence that occurs leading to the secondary phenomena—no matter what the method of drainage—to be:

1st. Germs from the air obtain access to the fluids effused at the surface of the wound.

2d. The putrefactive process is initiated, and putrid fluids bathe the wound.

3d. These putrid fluids absorbed, the secondary phenomena of surgical fever and septicæmia follow.

Of the agents used in the dressings of the five methods, an antiseptic or germ-killing agent is common to them all; while, in four of the five methods, raw cotton is applied. The efficacy of raw cotton, as resorted to, is due to its *preventing the access of germs to the wound, by filtering the air that permeates it, and trapping the germs with which it is laden, upon the fibres of its exposed portion;* thus the germs, "falling in a barren place," find nothing in which to set up the putrefactive process.

The *modus operandi* of the five methods practised may be epitomized, as, three ways in which germ implantation at the surface of the wound is prevented: 1st. By the continued application of a germ-destroying agent; 2d. By the initial application of an antiseptic, and the subsequent prevention of the access of germs to the wound; 3d. The continuous application of a germ-destroyer and a germ-trap.

Dr. James R. Wood, in his open method of treatment with the continuous application of a watery solution of carbolic acid and of balsam Peru, fulfils the first; the second is carried out by Mr. Lister, Dr. Guerin, and Mr. Callender; the third is followed by Mr. Gamgee with his continuous dressing of oakum and cotton.

From the present advanced standpoint of antiseptic surgery, I agree with the writer, that we can undoubtedly regard some of Mr. Lister's precautionary measures—such as the spray—as unnecessary. But, we should accord to Mr. Lister the entire credit of having pointed out the way to effect the triumphs in the surgery of to-day. The recognition of the baneful effects of germ implantation from the air on the surface of wounds, and the pointing out, as the indication of treatment, the preventing of the same, must be regarded, with the introduction of the ligature by Ambroise Paré, and the recognition of anæsthesia by Wells, as the three great epochs of surgery.

From the line of argument adduced, it appears to me that the five procedures of antiseptic surgery present no incongruities. They all insure rest to the wounded part, and free drainage therefrom, which militate against simple inflammatory action from disturbance of the part, or tension from retained fluids; and, in the three methods where coaptation of the wound is resorted to, they favor primary union. They also all provide for—what the writer of the editorial means to imply by the word "cleanliness," without according to it its due weight, or explaining its *modus operandi*—the prevention of germ implantation from the air, upon the surface of the wound.

This last indication fulfilled, is the key to the results in common of the five methods, viz.: the successful prophylaxis of putrefaction of the organic matter in the fluids effused from the wound, thus effectually doing away with the only condition that leads to the constitutional sequelæ or secondary phenomena of surgical fever and septicæmia. To the carrying out of this latter indication must be credited the wonderful successes of antiseptic surgery, as compared with the results in the treatment of wounds and surgical operations previous to its introduction.

It is often said, that without antiseptic methods surgeons had in the past similar successes to those of antiseptic surgery. True, but those successes were occasional, not uniform or continuous, and they were not looked for with any degree of certainty. Want of success was explained by "faulty states of the

patient's system," "want of reparative power," etc., etc.

Antiseptic surgery, *by preventing putrefaction in the wound*, has given a precision to surgical prognosis, by which we with reasonable certainty look for given results. Besides which, it has broadened the field of operative surgery, by enabling us to resort to operations, which, without its protective influence, would be unwarranted, or, at least, would be unwarranted in the light of the statistics of the operations performed in days gone by, when antiseptic surgery was not.

## ON THE PERMANENT REMOVAL OF HAIR BY ELECTROLYSIS.

By GEORGE HENRY FOX, M.D.,

NEW YORK.

(Paper read before the Medical Society of the State of New York, February 4, 1879.)

NEXT to our sympathy with the man who cannot raise a beard, comes our pity for the woman upon whom Nature has unkindly bestowed one. Her distress need not be pictured, as there is scarcely a physician present who cannot call to mind some lady who has besought him for a remedy to rid her of hair upon the face. What has been done in such a case? Possibly the various depilatories recommended in text-books on Dermatology have been tried and found to be no more serviceable and far more unpleasant than the use of a razor. Possibly an effort has been made to destroy the hairs by inserting hot needles, or injecting acids into the follicles. These means having proved futile, or perhaps harmful, it is possible that a vain attempt has been made to persuade the sufferer that the matter was of little or no consequence, and that cutting the hairs short, or plucking them with tweezers would remedy the evil.

It is quite probable, however, that the statement has been made that *nothing* could be done; and the patient, convinced that something must be done, has finally fallen into the hands of some advertising charlatan, and only yielded to despair after having been thoroughly swindled.

This form of perverted capillary nutrition, which shows itself upon the female face in the form of a promising moustache or beard, is by no means rare. Physicians are not only called upon to treat this, but also the few stiff hairs which are so often seen growing from a small fibrous tumor or pigmented nævus. In both these cases it is evident that destruction of the hair papillæ is the only means of radical cure; and in electrolysis we have, I am convinced, the best, if not the only practicable means of accomplishing this end.

To ophthalmology is due the credit of first employing electricity for the purpose of destroying hairs. Dr. Michel, of St. Louis (Clinical Record, Oct., 1875), recommended electrolysis in the treatment of trichiasis, and employed a method very similar to that which I have found serviceable. Dr. Piffard (Diseases of the Skin) speaks of treating two cases of hairy nævus by electrolysis, and in a paper presented to the American Dermatological Society (Aug., 1878), on the treatment of hirsuties, Dr. Hardaway advocated its use. As far as my knowledge goes, this is the extent of the literature of the subject.

The apparatus required for the operation is an ordinary galvanic battery, with a needle or fine wire attached to the negative electrode, and a sponge-tipped positive electrode, which should be applied to the skin as near as convenient to the field of operation. In my first attempts I introduced into the follicle a fine cambric needle, wound to within a quarter of an inch of the point, with a copper wire which joined it to the negative cord of the battery. This simple contrivance will answer the purpose, although a better substitute I have found in a fine flexible steel needle, used by dentists in extracting nerves. This needle, together with a convenient handle or holder, can be obtained from any dental-instrument dealer, and is readily attached to the battery cord.

In many cases where the hair follicles are large, as they are apt to be upon the cheeks, a fine platinum wire is superior to any form of needle. It can be filed to a point by means of a jeweler's file, and by virtue of its flexibility it will reach the bottom of the follicle (the hair having been previously extracted), while a stiff and sharp needle would pierce the follicular wall and fail to reach the hair papilla. In fact, whenever a needle is employed, the direction of the hair must be carefully noted or the needle will certainly go wide of its mark and fail to accomplish the destruction of the hair. On the other hand, a fine, soft, flexible wire will to follow the course of the follicle in some instances, as a soft rubber catheter follows the curve of the urethra in its introduction into the bladder. Where, however, the follicles are naturally small, as about the neck, no matter how coarse the hairs may be, the soft wire will either bend upon itself or pierce the wall of the follicle and go in a wrong direction. In such a case it is better to use the stiff needle and introduce it in the direction of the supposed site of the papilla.

In operating, a strong light is essential to success. The patient should sit by a large window and preferably in the sunlight. Where the hairs are numerous and the follicles small, the eyes of the operator soon tire, and a séance of more than a half or three-quarters of an hour is apt to become both unpleasant and unprofitable. The use of a lens has been recommended, but as both hands are generally employed in the operation, I cannot see how it could be conveniently used unless fitted to the eye.

The extraction of the hair should precede the introduction of the needle or wire, in all cases where the follicle is of large size. In case of fine hairs, however, it is unadvisable. Often when a fine hair is extracted it is not an easy matter to see the mouth of the follicle. If the light is at all dull or the eye fatigued, the follicle from which the hair has been extracted, is lost, and there is little certainty of introducing the needle at the right point. Moreover, if the hair be allowed to remain, tension upon it will usually reveal the direction of the follicular portion, and the needle introduced at the mouth of the follicle and pressed down into the skin as near to the hair-root as possible, will be far more apt to reach or approach the papilla than as though it had been introduced into the follicle after the extraction of the hair. Upon the cheeks and chin, where the skin is thick and the follicles slightly patulous, I have found it convenient to use the soft platinum wire *after* removal of the hair. Beneath the chin, however, and upon the neck where the skin is comparatively thin, I prefer to use the stiff, yet flexible needle, introducing it *before* removal of the hair. There is one advantage lost by removing the hair before the introduction of the needle. We have in that case no test of the successful result of the electrolytic action. On the other hand, if the hair be not extracted at the outset, we can judge of the effect produced by the electrolysis. If the hair comes out when pulled very

gently, it is probable that the papilla is destroyed, but if upon traction with the epilating forceps it seems to be as firmly rooted as at first, it is a proof of the inefficacy of the operation, and suggests a re-introduction of the needle and repetition of the electrolysis.

As regards the strength of the current to be used, no absolute rule can be laid down. The stronger the current, the more rapid will be the effect and the greater will be the pain. From five to ten cells of the ordinary zinc and carbon battery may be used, the number selected being dependent upon the susceptibility to pain and the courage of the patient. In no case can the hair papilla be destroyed without some pain, and the patient will naturally stand a trifle more when there are only one or two hairs to be destroyed, than when there are several hundred. The current must be strong enough to cause decomposition of tissue, which will be manifested by the escape of fine bubbles or froth, by the side of the needle at the mouth of the follicle. When the patient is not particularly sensitive, a sufficient number of cells may be employed to produce this peculiar frying of the tissue immediately after the commencement of electrolytic action. With a weaker current this escape of bubbles may not be noticed until a few seconds after the completion of the circuit.

The first effect of the operation is to produce a small whitish elevation around the mouth of the follicle; in fact an urticarial wheal. After a protracted sitting, the part operated upon will be acutely congested and somewhat swollen, and the number of hairs operated on can usually be determined by gently passing the finger over the skin and counting the number of small lumps resulting from peri-follicular exudation. On the following day the diffused congestion will have disappeared and left a number of red papules or small pustules at the mouths of the follicles. These quickly disappear, and we have only to wait patiently for a few weeks to determine how many hairs have escaped destruction. Without an unusual amount of skill and practice on the part of the operator a certain number are almost sure to grow again, and of course the operation must be repeated until all are destroyed. When there are but one or two strong hairs growing upon the cheek from a small hypertrophic nævus, both the hairs and the "wart" from which they spring can be easily destroyed by a single operation, but when a patient has several hundred scatteredhairs growing upon her cheeks and chin, successful treatment will require much time and patience. The soft, downy hairs which often grow luxuriantly upon the upper lip and cheeks of certain women, are not amenable to treatment, and fortunately, these are not incompatible with female beauty. But whenever the hairs grow long and strong and dark, producing a serious disfigurement, it can be safely asserted that they may be permanently removed by means of electrolysis.

A Case of Accidental Scalping.—M. Hallez reports the case of a young girl, whose entire scalp was torn off by some revolving machinery in which her hair was caught. The bones of the skull and some of the cervical vertebræ were laid bare, and both ears were torn off. The wound was treated by occlusion. The pain was slight, and the general symptoms were not grave, and the entire surface became covered with granulations. Two months after the accident, however, a series of hemorrhages set in, and the patient died of anæmia.—*Gazette des Hôpitaux.*

## A GIANT BIRTH—THE CHILD WEIGHING TWENTY-THREE AND THREE-QUARTERS POUNDS.

By A. P. BEACH, M.D.,

SEVILLE, OHIO.

At the request of many readers of The Medical Record I am persuaded to report a case of labor which I attended a few weeks ago. The great size of the child at birth was the remarkable feature of the case, it being probably the largest human birth on record. It perhaps would be well to state here, that when we take into consideration the immense proportions of the parents, the size of the child need not astonish us. The mother, Mrs. Captain M. V. Bates, whose maiden name was Annie Swan, of Nova Scotia, stands 7 feet 9 inches in height. Captain M. V. Bates, formerly of Kentucky, is 7 feet 7 inches in height. These large people have, undoubtedly, been visited by many of the readers of this journal, as they have given public receptions in nearly all of the large cities and towns of Europe and America.

At 12 M., January 15, 1879, I was called upon to attend this lady in confinement, it being her second labor. I found her surrounded with competent attendants, and everything in order and at hand that would in any way add to her comfort and convenience. Her pains were quite infrequent and light. After a convenient time, with my patient in the usual position, I proceeded to make an examination, but was unable to reach the os uteri, it being so far up. I could not with my hand, by any ordinary effort, make a satisfactory examination, but concluded that she was in the initial stage of labor. She remained in much the same condition for the next 24 hours, passing the night comfortably, and I saw no necessity for any interference with the order of things. At the end of 36 hours the pains became more frequent, and on examination I found the os dilating and labor progressing favorably. The head engaged; position, second occipito-anterior. Notwithstanding the long interval between pains the head made good speed through the great depth of pelvis. At 4 P. M., on the 18th, while conducting an examination during pain, the membranes gave way spontaneously and the amniotic fluid came pouring out so profusely as to startle every one. I had my patient very close to the margin of the bed, as was necessary in order to facilitate manipulation on account of her great size.

The bed was well protected with rubber blankets, which carried the waters over the side of the bed, where they were caught in vessels to the amount of five gallons. That lost by absorption and evacuated with succeeding pains, would make the total of water not less than six gallons. This was, undoubtedly, a case of dropsy of the amnion, co-existent with general dropsy, from which she suffered to some extent during the last months of pregnancy.

Soon after the rupture of membranes the fœtal head was disengaged, and in the soft parts. The mother was in good condition, the fœtus seemed strong and healthy, and everything indicated a speedy and successful termination. But here the trouble began. After the escape of the waters all pain ceased. The great abdominal muscles which had been so much distended lay lax over the fœtus like the blanket which covered the person of the mother.

Inertia was complete. There was no pain except as the result of manipulation. Ten grains of quinine, Squibb's ergot, and brandy were administered. The forceps were resorted to early, but all to no pur-

pose. The forceps could not be successfully applied because of the unusually large head which lay, with the neck, in a vagina that would measure on its posterior aspect 12 inches at least, and from 7 to 9 in its anterior. The safety of the child was my great fear. The head was seemingly almost born, but the shoulders were fast. How to disengage them was the question. The hand could not be passed to reach the shoulder. I had telegraphed for Dr. J. D. Robinson, of Wooster, O., who now came to my assistance. He attempted the use of the forceps with but little success. The child could not be so delivered. After further consultation, as it was our great desire to deliver if possible without mutilation, we passed a strong bandage over the neck of the child, and while one made downward and lateral traction, the other, after several attempts, succeeded in bringing down an arm, and finally after a laborious siege we succeeded in delivering our patient of a male child. It weighed 23¼ lbs.; its height, 30 inches; breast measure, 24 inches; breech, 27 inches; head, 19 inches; foot, 5½ inches in length. The secundines, which were soon removed, weighed 10 lbs. The mother was considerably exhausted, but is making a good recovery. Mrs. Bates, six years ago, gave birth to a dead child in London, weighing 18 lbs., and 24 inches in height. She was attended at that time by one of the celebrated obstetricians of that city, who encountered the same difficulty in delivery that I had.

[We believe that this is the largest infant at birth of which there is any authenticated record. Cazeaux refers to one that weighed 19 pounds. There is a fœtus in the London Hospital Museum 24 inches long. The average length is 20 inches; average circumference of head 13½ inches. The placenta usually weighs ⅛th as much as the fœtus. In this case the secundines in all weighed nearly half as much as the child.—Ed.]

# Reports of Hospitals.

## NEW YORK STATE WOMAN'S HOSPITAL.

### Service of Dr. Nathan Bozeman.

(Reported by Dr. Rudolf Tauszky, N. Y.)

### CASES OF OVARIOTOMY.

Since May last, Dr. Bozeman has performed five ovariotomies, all resulting in recovery. In three of the cases both ovaries were removed. Dr. B. attributes his success (100 per cent. recoveries) to the following points: 1st. If the operation can be safely delayed for a week or more, after coming under treatment, he prepares the patient by administering to her tonics and food as much as she can bear. Iron he considers a most valuable agent in the preparatory stage of the treatment. 2d. The antiseptic method (Lister's) he invariably uses in this, as in all major operations. He thinks his successes are greatly due to the means thus adopted of preventing peritonitis and septicæmia. 3d. The treatment of the pedicle; whether long or short, he returns it into the peritoneal cavity. The doctor transfixes and ties it, right and left, several times with wax, carbolized, strong silk ligatures, and claims that there is no necessity of using clamps or Koeberle's serre-nœud. 4th. He includes the peritoneum into his sutures when closing the abdominal *incision*, which he never makes larger than is necessary in the median line. Carbolized silk sutures are also used for closing the wound as for tying the pedicle. Beef-tea, milk and eggs constitute the food given as soon as the patient has fully recovered from the anæsthetic (ether being used for this purpose). If there is a tendency to vomiting, the food is administered per rectum. Quinine and opium the doctor considers of the highest importance in the after-treatment, given in full doses, as being antiperiodic, and a preventive of peritonitis. Should there be an undue elevation of temperature, not controlled by the medication enumerated, Kibbes' cot comes into requisition. The first incision he never makes larger than is necessary for the introduction into the peritoneal cavity of his abdominal spatula, as the doctor terms it (a flexible, metallic rod, 10 to 12 inches long, well rounded off, with a triangular-shaped termination at either end, like Nott's vaginal depressor), about one inch long, also well rounded off. The size of the tumor, its adhesions, if there be any, are thus explored with the aid of this spatula. The incision is then enlarged to 4–6″, for the purpose of introducing the hand and separating the adhesions, if their presence has been made out, in the mode above described. The next step consists in tapping the cyst or cysts with Spencer Wells's trocar. In multilocular cysts he taps one cyst after the other through the opening made in the first cyst, and so on, the patient being turned on her side. The cysts are thus emptied to a size sufficient to pass his right hand through the abdominal opening into the peritoneal cavity while drawing out the cyst or cysts with his left. This simultaneous use of both hands Dr. B considers of the utmost importance while drawing out the cyst. The right hand introduced inside the cavity completes the separation of adhesions that may have remained after the use of his spatula, and also guards against any undue stretching or possible rupture of the intestines, gall-bladder, etc., with which there may be adhesions. The omission of this precautionary measure doubtless has caused many fatal results that might have terminated favorably had this precaution been practised. 6–8 grs. of quiniæ sulphate and twenty-five drops of the liquor opii comp., administered per rectum, are the doses of these remedies used from the first for the purposes mentioned. The use of hypodermic injections are being avoided by Dr. B. After ovariotomy, he is of the opinion that on account of the pain thereby produced, the patients abhor them, and thus cause undue nervous excitement. Dr. Bozeman never uses drainage tubes through Douglas's cul-de-sac, but prefers to draw off effusions by means of tubes introduced through the abdominal opening, reaching down to Douglas's cul-de-sac.

Dr. Bozeman performed his first case of ovariotomy in 1865, also successfully, making in all six cases, wherein nine ovaries were removed. The first operation he published September 1, 1866, in The Medical Record, under the title, "Remarks on the History of Ovariotomy," and the report of a case in which the intraperitoneal treatment of the pedicle with the silver ligature was adopted with success. As stated above, Dr. Bozeman now uses only waxed carbolized silk both for tying the pedicle and the abdominal wound.

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A Centenarian.—The oldest woman in Vienna died on October 16th. Her name was Anna Suda; she was born in Bohemia on March 29, 1767, and had consequently reached the uncommon age of 111½ years. During the last two years of her life she was perfectly blind and imbecile.

# Progress of Medical Science.

THE ACTION OF DUBOISINE.—Duboisine, the active principle of *duboisia myoporoides*, an Australian shrub, is a drug which is contending for the place of atropine in ocular therapeutics. A case displaying its powerful action is related by Dr. W. W. Seely, in the *Cincinnati Lancet and Clinic* for February 15th. He instilled three or four drops of duboisine (gr. iv. to ʒ i.) into the eye of a patient, taking no pains to prevent its passing into the throat. The same patient had used a four-grain solution of atropine for some weeks, with only local effects. In five minutes after instillation of the duboisine the pupil was dilated, the accommodation paralyzed, and the patient was complaining of great faintness. In fifteen minutes the faintness began to improve, but the patient felt very drowsy; slight dryness of the throat was present. The face was not flushed, and the pulse was normal. In an hour and twenty minutes the patient was able to walk home, though still feeling sleepy. The next day there was marked oral and faucial dryness, but on the third day the patient felt well, and the pupil was normal. The points in which the drug differed from atropine in its effects were, 1st. The vertigo or faintness; 2d. The sleepiness, which was, however, rather stupor than sleepiness; 3d. The late appearance of faucial dryness; 4th. The apparently negative effects on the pulse; 5th. The absence of flushing of the face.

CHLORALISM AND ALCOHOLISM.—An entirely new series of symptoms is said by Dr. G. D. Griffith to be the result of the prolonged use of chloral for alcoholism. His observations would indicate that the drug may produce a condition akin to that for the cure of which it is given.

Among the first symptoms are pains in the extremities, like those of muscular rheumatism, for which they are generally taken. The drug being continued, the mind becomes affected. It is first weakened, the patient is restless and irritable, and finally has attacks of acute delirium. At this time the face is congested, the eyes blood-shot, the throat red; there may be nausea and vomiting; in spite of large doses the patient sleeps but little. These symptoms end in intense nervous prostration, and perhaps death. They simulate alcoholism, but will only cease when the chloral is discontinued. For distinguishing whether the patient is suffering from chloralism or alcoholism, the withdrawal of the drug is the most efficient means.—*The Practitioner*, Feb., 1879.

ARTIFICIAL VESICO-VAGINAL FISTULA FOR THE CURE OF CHRONIC CYSTITIS.—Some time ago Dr. M. A. Pallen presented the records of eight cases in which he had tried this method in the treatment of cystitis with very good results. The operation has since been endorsed by other gynæcologists.

In his paper on the subject, Dr. Pallen insists first upon the necessity of a careful diagnosis between urethral and vesical trouble. To insure this, he himself always employs dilatation of the urethra and physical exploration with finger and speculum.

In regard to the cases appropriate for this extreme measure of treatment, there are many milder forms of vesical trouble which do not need it. In these, replacement of the uterus, and operations upon the anterior vaginal wall or perineum, with suitable medication, may be sufficient. When chronic cystitis proper, however, is found to exist, there is but one remedy, and that is long-continued and absolute bladder rest; and kolpo-cystotomy, or the formation of a vesico-vaginal fistula is the only way in which this can be secured. This operation is best performed with the Paquelin thermo-cautery, heated to a *red* heat only, as this prevents hemorrhage and subsequent union. The opening must then be kept patent for months, by tubing or glass buttons if necessary, the bladder being daily washed out with warm demulcent fluids. It is rare that any medication is needed. In this way spasm, irritability, and irritation gradually disappear, and when this is accomplished, the fistula is sewed up and the patient cured.

A STUDY OF THE SO-CALLED TENDON-REFLEX PHENOMENA, BY W. R. GOWERS.—This paper embodies the results of observations, made upon three hundred patients, on the nature of knee-reflex (contraction of the quadriceps extensor upon striking the ligamentum patellæ, usually absent in ataxia, and excessive in lateral sclerosis) and of ankle-clonus (clonic movement at the ankle-joint from sudden dorsal flexion of the foot in lateral spinal sclerosis). Gowers regards the knee-phenomenon as a spinal reflex for the following reasons, viz.: its loss in spinal disease, its arrest by section of the crural nerve, its radiation to the other leg in animals (which he has observed in several cases in man), and, lastly, the results of a study of the movement with the myograph. By this instrument Gowers found that the interval from the tap upon the tendon to the production of the reflex varied from .09–.15 second, which corresponds to the time necessary for the production of a spinal reflex action. The question as to the origin of the afferent impulse in the tendon, or in the muscle (by sudden tension), has been left undecided by the writer, though he leans towards the latter view. The reflex is arrested by damage to the posterior nerve roots (as in locomotor ataxia), disease of the gray matter (as in muscular atrophy), and in lesions of the anterior roots (as in old meningitis); it is also lost in advanced pseudo-hypertrophic paralysis. Its occasional persistence in locomotor ataxia is connected with slight damage to the posterior root-fibres.

Forty tracings of the ankle-clonus were made, and it was found that five to seven contractions occurred per second; during the intervals the relaxation of the muscle is incomplete. A similar clonus may often be obtained from the adductor pollicis of the foot. Ankle-clonus does not appear to result unless the stimulus acts upon the muscle, since it cannot be excited by a stimulus applied to the tendon, unless its tension is increased, and the muscle therefore acted upon. Furthermore, a lateral tap on the tendon will not produce it if the tendon is supported on the other side; on the other hand, the initial contraction can be excited by tapping the muscle. Gowers does not believe ankle-clonus to be of a reflex nature, for the following reasons: he has found that in cases in which the ankle-clonus can be obtained, a tap on the anterior tibial muscles, during passive dorsal flexion, excites contraction in the calf muscles, which does not occur when the tibia is tapped, and so cannot be the result of increased tension. The interval between the tap and the contraction was found to be only .03–.04 second, and therefore insufficient for conduction to and from the cord; the stimulation of the muscle must therefore be direct. Other measurements show that in lateral sclerosis the interval between the tap on the tendo-Achilles and the resulting contraction is .025–.04 second, quite insufficient for a reflex. But the extreme irritability

to local stimulation, excited by tension, may be reflex. Tension on muscular fibres causes an afferent impression, and traces of the clonus show that the irritability is not developed instantly on the tension being put on, but after a period long enough for a reflex. Hence we understand why, though local in its nature, it occurs in spinal sclerosis.

The intervals between the contractions of the knee-clonus bear the same ratio to those of the ankle-clonus as does the interval between the tap and isolated contraction of the knee-reflex to the interval between the tap on the Achilles-tendon and the calf contraction. Hence each contraction in the knee-clonus is probably reflex, excited by the sudden tension of the muscle from the effect of the preceding contraction. In the calf and great-toe muscles the sequence of tension and contraction occurs at each step in walking, and a reflex between the two is probably acquired in the act of learning to walk. A reflex relation between tension and contraction probably plays an important part in the co-ordination of often-repeated movements, and its loss may be part of the pathological state in locomotor ataxia. The ataxic and the child learning to walk may thus be similar in this respect. If this view of ankle-clonus be correct, it should also be a normal phenomenon. The tracings showed that the ankle-clonus in four healthy individuals had the same uniformity and time as in disease.—*Lancet*, Feb. 1, 1879.

Disease of the Spinal Accessory Nerve, by Dr. Althaus.—The patient was a married lady, æt. 53 years, in whom incessant spasm of the left sterno-mastoid and trapezius muscles had come on, apparently from anxiety. Muscular rest was only obtained during sleep. The patient was unable to follow her usual occupation, and the general health suffered. Treatment consisted in the application of the voltaic current to the affected nerve, the internal use of bromide of potassium, cannabis indica, and belladonna, subcutaneous injection of arsenic and morphia, and external use of chloroform liniment; this treatment was ineffectual, although some temporary relief was obtained. Dr. Althaus had found treatment unsuccessful in other cases which had come under his notice; he suggested stretching of the spinal accessory, in obstinate cases, in which the patient was determined to seek relief. Dr. Poore, in his work on electricity, records a case which he believes was cured by galvanism. In one case a portion of the spinal accessory nerve was excised by Mr. Rivington. The sterno-mastoid was set at rest, and the head assumed its normal position, but the patient unfortunately died from septicæmia.—*Trans. Clinical Society of London*, Jan. 24, 1879.

Spinal Cord from a Case of Infantile Paralysis—Dr. F. Taylor.—A child, æt. 3 years, had suffered from infantile paralysis involving the left leg from the age of fifteen months. The patient died of broncho-pneumonia. Post-mortem: The muscles of the left leg were extremely pale and of a soft consistence. A transverse section through the lumbar region of the cord showed a slight diminution in size on the left side, the left anterior roots of the lumbar nerves being also smaller. Microscopically, it was found that there was almost complete absence of motor ganglion-cells in the left anterior horn; the large groups normally present in the centre and outer border were entirely absent. A few cells remained in front, but they were small, with few processes, and pale in color. The basis-substance of the gray matter presented a uniform, felt-like appearance, from a close matting together of very fine fibres. The vessels, especially the capillaries, were much less numerous than in health. The antero-lateral column near the gray matter was much denser than normal, the nerve-tubes smaller, and the connective tissue bands more abundant. The anterior nerve-roots were mainly composed of white fibrous tissue. They contained a few nerve-fibres, but only about half the size of those seen on the right side.

Although there had been no palpable weakness in the right leg, yet the right anterior cornu contained too few ganglion-cells as compared with a healthy cord.—*London Path. Soc., Feb.* 4, 1879.

A Vegetable Peptone-Albumen Solution for the Use of the Sick.—Dr. Franz Penzoldt, of Erlangen, prepares from pea-flour, by means of pepsine and salicylic acid, a vegetable peptone solution which he has found by clinical experience to possess great practical value. He recommends it as a supplement to, not as a substitute for, Leube's meat-solution, over which, however, it possesses the advantages of being much less costly and less troublesome to prepare, and of being very agreeable to the taste. The method of preparation is very simple: 8 oz. of finely powdered pea-flour, one quart of water, 15 grains of pure salicylic acid, and 7½ grains of pepsine (it is most important that this last should be of an excellent quality) are thoroughly mixed together, and then left in a warm place (not above 100° F.) for twenty-four hours, during which time the mixture must be frequently stirred. It is then filtered through thick linen, which retains the starch, and the peptone-albumen solution is obtained. It has the appearance of pea-soup, and a delicately sweetish taste. The salicylic acid was at first added, in Dr. Penzoldt's preliminary experiments, to prevent the fermentation that sometimes occurred; but he soon found that it could be substituted for the hydrochloric acid, as it possessed fully as much, and perhaps more, digestive activity.

Before the solution is used it should be gently heated over a water-bath, and at the same time it may be reduced somewhat in volume, so that only enough to fill two soup-plates, a sufficient quantity for one day, remains. In warming, a portion of the albumen separates in the form of small flocculi, and a thin, mechanically unirritating pap is formed, which contains the peptones in solution. Salt must be added to it in proper quantities, and it may be flavored to taste with root and fruit extracts, Liebig's extract, etc. Dr. Penzoldt reports several cases in which this solution acted very satisfactorily, among them being some cases of ulcer and catarrh of the stomach, and one each of dysentery and diabetes. In all the cases it was well borne, and the patients took it willingly, and improved on it. It seems to be applicable more especially in cases of gastric ulcer and of chronic catarrh, dilatation, and carcinoma of the stomach, but also in cases of chronic catarrh of the intestines, dysentery, convalescence from typhoid fever, anæmic conditions with weak digestive powers, diabetes, etc.

The same solution may be employed as a nutritive enema; only in its preparation for this purpose the pancreatic ferment must be substituted for the pepsine. The following is the formula for it: 8 oz. of pea-meal, 1 pint of water, 15 grs. of salicylic acid, and 10 drops or more of pancreatine-glycerine; mix well, and allow it to stand for several hours to a day in an ordinary temperature. During this time some peptonization takes place, but no sugar is formed. The fluid is then simply poured off, a little of the meal being allowed to go with it, and the nutritive

enema is ready. There will be about enough for two clysters, which may be administered with any ordinary syringe. In the rectum more peptones and some sugar are formed, and in favorable cases are entirely absorbed. The injection is, as a rule, well retained. One patient, a phthisical man, retained it for four hours, and asserted that he experienced a feeling of contentment after it. After four hours he passed some feculent masses, in which no peptone-reaction could be demonstrated, although the injected solution presented this reaction very distinctly.—*Deutsche Med. Wochen.*, Nos. 33 and 34, 1878.

Partial Excision of the Descending Colon for the Extirpation of a Tumor.—Prof. Gussenbauer was recently consulted by a man who had presented for a week all the symptoms of a complete intestinal obstruction. He could take no nourishment, and suffered from intense pain, eructations, and incessant hiccough. Injections and catheterization showed that the obstruction was seated in the descending colon, and manual exploration by Simon's method revealed a tumor as large as a fist, almost completely obliterating the colon, and adherent to the small intestines and the mesentery. Despite the unpromising nature of the case, Prof. Gussenbauer determined to extirpate the neoplasm. He made an incision in the linea alba, and another running outward towards the lumbar region, punctured the coils of intestine, and got down to the tumor, which he dissected out with the scissors and his fingers. In this manœuvre the small intestine was opened, but the wound was at once closed with a catgut suture. Finally the large intestine burst open, and its contents escaped into the peritoneum. The operator then at once excised a segment of the colon, including all of the tumor he had been able to dissect off, and united the two ends of the gut by sutures. The peritoneum was then carefully cleansed, and the wounds closed. It is perhaps unnecessary to add that the patient only survived the operation a few hours.

A similar operation was performed many years ago by Reybard (*Gazette Méd. de Paris*, 1844). His patient recovered in thirty-eight days, but died ten months later of a recurrence of the tumor.—*Lyon Médical*, Jan. 26th.

Supra-orbital Tic Cured by an Injection of Chloroform.—In this case from six to twelve drops of chloroform were injected into the upper eyelid, the point of the needle being directed toward the supra-orbital foramen. The operation was followed by severe pain, which was succeeded by insensibility of the entire region. A tumefaction of the region was also produced, which was replaced by an induration that persisted for several days. In spite of the obstinacy of the affection, a single injection gave relief for several months.—*La France Médicale*, Dec. 11, 1878.

On the Selection of an Operation for Stone in the Bladder.—In an article upon this subject, Mr. Teevan lays stress upon the advantages to be derived from first crushing the stone and then removing the fragments through an incision, as for external urethrotomy. By this means he claims to avoid the high mortality of lithotomy, and the intractable cystitis so often induced by the repeated manipulations of lithotrity. After reviewing the several operations and their applicability to different circumstances, he sums up his conclusions as follows: 1. Lateral lithotomy is specially indicated for the removal of all stones from males under puberty. 2. All calculi in men ought, if possible, to be crushed. 3. Stones in the border-land, between lithotomy and lithotrity, may well be disposed of by lithotrity and external urethrotomy. 4. Calculi within the legitimate range of lithotrity, occurring in patients suffering from some complication which precludes crushing, are best dealt with by lithotrity, followed immediately by external urethrotomy, in order to remove the whole stone at one sitting. 5. All calculi not exceeding one inch in the longer diameter ought to be crushed. 6. Phosphatic stones up to one inch and a half in the longer diameter may be crushed. 7. Lateral lithotrity is specially indicated for the removal of calculi varying from one and a half inches to two and a half inches in their longer diameter. 8. Bilateral lithotomy is well adapted for the extraction of stones measuring from two and a half inches to three and a half inches in their shorter diameter. 9. The recto-vesical operation affords the most room for the removal of very large calculi, and is probably a safer method than supra-pubic lithotomy for such cases. 10. The median operation is only adapted for those cases in which lithotrity has failed, and the immediate removal of the fragments is required. A similar remark applies also to the medio-lateral method. 11. Small stones in females may be best extracted by forcible dilatation. If large they had better be crushed, the female bladder and urethra being well adapted for performing lithotrity.—*The Medical Press and Circular*, Jan. 8, 1879.

Osseous Union in Fracture of Patella.—Mr. Wheeler, of Dublin, reports an interesting case of fractured patella in which bony union is claimed to have taken place. Two years after the accident the patient died of phthisis, and Mr. Wheeler was fortunate enough to secure the specimen. This was submitted to Prof. Macalister for examination, who reported as follows: "I have macerated and examined the patella you sent me. Having cut it longitudinally, I find it to be bony throughout. The median half I have cleaned, and removed from its back the articular cartilage. It is a perfectly continuous bone, and shows a ridge of new bony matter across its articular face. The lateral half I have only slightly cleaned, but the union in it is very distinct and unmistakable. The sulcus at the upper and outer angle was filled by a mass of fibro-cartilage." This is one out of four cases which Mr. Wheeler has treated by his splint; the clinical results in the other three cases have been entirely satisfactory, and he feels confident of bony union in all. Mr. Butcher has used the splint three times, and confirms the advantages claimed for it. The apparatus consists of a box splint for securing the leg, which may be elevated or lowered at pleasure, and two metal plates, softly padded, secured, one above and one below the patella, by leathern straps. These plates are approximated by means of a chain and windlass, and maintain the fragments in perfect juxtaposition. —*The Medical Press and Circular*, Jan. 8, 1879.

Filariæ and Leprosy.—Mr. T. Spencer Cobbold reports a case of leprosy, related to him by Dr. Bancroft, of the Brisbane Hospital, in which filariæ were found in the blood. The patient was a native of England, had been in the colony twenty-five years, and had been in the habit of using well- and swamp-water. Dr. Bancroft adds that he has re-examined the blood of two patients who formerly had filariæ in connection with abscesses of the arm; their blood is now free from hæmatozoa.—*The Lancet*, February 1.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, March 22, 1879.


## THE PROPHYLAXIS OF SCARLET FEVER.

THE current medical literature of the past year or two shows a very marked increase in the attention that is being given to the prevention of scarlatina. It may be well to inquire whether amongst the many new drugs suggested, and new measures advised, there has been anything discovered of real value in providing immunity from this most destructive of the infectious diseases.

Scarlet fever is a purely contagious disease, but although this simplifies the question of prophylaxis, it does not make it an easy one; for the contagious principle has certain peculiarities which make it extremely difficult to discover whether, while making our most energetic attacks, we have really been influencing it at all. The contagion is not very volatile, it disseminates itself slowly, it has a most tenacious vitality, and it fastens itself only upon those persons who are predisposed to its influence, leaving others unharmed in spite of the fullest exposure. Thus, while its sluggish movements allow us time for various preventive measures, its vitality often sets these at naught, and its idiosyncrasies of attachment disturb all calculations in regard to prophylactic drugs.

Methods of prevention apply to communities and to the individual. In regard to the first, much has been done by various Boards of Health. These measures, however, after all cannot and do not prevent epidemics, but only lessen their extent. Scarlet fever is now endemic in all large cities, and its means of propagation are so numerous that even if once stamped out, no practicable quarantine could keep it away. All that can be done in this direction, therefore, is to make proper regulations concerning public schools and public conveyances, and to provide for proper quarantining and disinfection where cases have occurred. Such measures have been carried out in a number of cities and States. That they do not accomplish all that could be desired may be inferred from the fact that we have had an extensive and severe epidemic in this city during the past winter. This has occurred in spite of sanitary regulations, and we can only have the satisfaction of knowing that it would surely have been worse without them.

Since State medicine, so far as we now know, can but partially affect scarlatina, in the way of prevention, attention is naturally turned to the discovery of such special drugs and measures as the individual physician can use for this purpose. And we here find a long list of preventive remedies, most of them recent, which have been urged with more or less confidence and enthusiasm upon the profession.

The very considerable success which attended the inoculations of small-pox led to a trial of a similar method with scarlatina. Some half-dozen reports of inoculations have been made, but only one experimenter has had favorable results, and the evidence on the whole goes to show that inoculation is not a justifiable measure.

The oldest of reputed prophylactics is belladonna. The fact that even now one occasionally meets reputable physicians who advocate its use testifies rather less after all to their scanty judgment than to the inscrutable ways of the scarlatinous poison. It will be found, however, that as a general thing confidence in belladonna is in inverse proportion to the extent of the physician's experience, and it is quite time now that we cease to paralyze the accommodation and impair the deglutition of patients on the unsubstantial ground that it will not do any harm and may do some good.

Since the popularity of the germ theory became established, children have been saturated with all kinds of anti-fermentatives, in the hope of preventing or curing the disease. Cases are reported where salicylic acid has apparently acted as a prophylactic. The hyposulphites have had the same indorsement. Carbolic acid has been much extolled. From two sources there have recently been strong recommendations of the sulpho-carbolate of soda. Acting upon a modified view of the germ theory, ozonic ether has been given internally and externally with great success, both in prevention and treatment. Upon nearly the same grounds chlorate of potash and vegetable acids are suggested as likely to be very efficacious. Strongly acid gargles, we have been assured, will kill the germ at the very threshold and prevent its infecting the system. Finally there has been advocated, on empirical grounds, a purely milk diet, and a series of cases to show its prophylactic value has been published.

We mention these various methods, chiefly because we believe that they only show how easily a drug may appear potent to an imagination that has been stimulated by alluring hypotheses. We confess to the greatest incredulity in regard to the efficacy of any of them. Indeed, the logic which leads to the adminis-

tration of any known anti-fermentative as a prophylactic has too unstable a ground to deserve much respect. In the first place, the question of what is the contagious principle of scarlatina has not yet got beyond the domain of probabilities. We can say, with much positiveness, to be sure, that it is no visible form of bacterium or micrococcus, and we can, perhaps, infer from analogy that it is a particulate something too small to be detected by the microscope, that it is albuminoid in composition and multiplies at the expense of physiological processes. Whether it is living or dead, whether it is the degenerated protoplasm of man or the modified protoplasm of vegetable, whether it acts in conjunction with bacteria or feeds directly upon the tissues, all these questions are much beyond the pathologist as yet. But, in any case, it is very hard to see how anti-fermentatives can reach this virus. If it is dead, we certainly need not give such drugs to kill it; if it is living, there is no evidence or probability that the system can be so saturated as to destroy such infecting protoplasm and not the living matter of the tissues at the same time. In the blood of persons deafened with quinine or salicylic acid the bacterium disports himself with as much activity as elsewhere, and the amœboid movement of the white blood-corpuscles can still be easily seen. It is a fact, to be sure, that there are drugs, like quinine, which affect the size and internal movements of the blood-globules, but we cannot infer from this that there are prophylactic germicides, which will not prove to be homicides at the same time. The idea then, we repeat, that anti-fermentatives will be efficacious, though not impossible, is inherently improbable, while the idiosyncrasy of the scarlet-fever poison will oblige observers to collect a vast number of cases in order to prove the prophylactic power of any particular drug. We do not wish to discourage experimentation, but it should be remembered that therapeutics are not advanced by continually announcing on the basis of a dozen cases new powers in drugs which further experience at once disproves.

Since there is then no internal medication on which we can rely to prevent the disease, we must turn to external methods; and, after all, much may be accomplished by these. Amongst them, complete isolation stands first, and is the only sure preventive. Next to this comes plenty of fresh air, and finally the disinfectants, of which heat and sulphurous acid are perhaps, at present, most popular. Carbolic acid, though once very much praised, does not seem to be so efficacious against this disease. There is very considerable evidence that greasing the body, perhaps with a disinfectant added, during the desquamative periods, together with warm baths, is of great value in preventing extension of the disease, since by this means so much of the infected epidermis is safely removed.

Particulars of this kind, however, are easily accessible, and we need not enter into them further. Although we cannot yet root out endemic scarlet fever, nor avoid its epidemic occurrence, we can, at least, prevent its spreading through families and to many new localities, where formerly it could ravage at will.

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### CONCERNING PEDESTRIANISM.

THE results of the recent walking match are quite remarkable as showing the endurance of the human frame under prolonged and severe muscular exercise.

During the race the public has been treated to all the usual rates of progression, the long stride, the short step, the dog-trot, and the rapid run. It has been proved that short lower extremities are best for a long race, that an easy trot is more endurable than even a long walking stride, and that long legs are to be trusted only in comparatively short journeys. Bodies compactly built and even below the medium size have been shown to stand fatigue better than those of more commanding proportions and greater height. These facts bear somewhat upon the general laws relating to the vital force possessed by different individuals as calculated by the conformation of the body. Those who have made a study of anthropology have given the greatest vitality and the largest amount of endurance to the large-chested, long-bodied, undersized persons.

Although every one is ready to applaud the achievements of men who perform their tasks so heroically, the conclusion is nevertheless irresistible that there is the greatest possible danger of straining their vital forces beyond repair. In fact, the latter condition seems a special danger in races upon which heavy sums are wagered, and upon which great sporting interests depend. From such a point of view, these performances prove only what can be endured in the shape of fatigue, and still allow the competitor to walk off the track.

The moral effect of this race will, doubtless, be to develop a mania for pedestrianism. If the latter is kept within the limits consistent with health, the recent excitement over the great match will not have been in vain. At all events, the standard prescription of the physician will probably not meet with as much opposition as formerly.

Aside from popularizing pedestrianism, the match has afforded an excellent opportunity for testing the theories of muscular force in their relations to food, animal heat, excretion, etc.

In the case of Weston many interesting and instructive facts were obtained, both here and in England. If any of the experiments were repeated during the recent contests, some important additional facts may be obtained, which may help to settle some doubtful points in nutrition and excretion. We have reason to believe, however, that in view of other interests which were considered paramount to scientific inquiry, no detailed or trustworthy observations were made.

### NEW JOURNALS, AND "A WANT LONG FELT."

WHENEVER the projector of a new medical periodical says that he is to supply "a want long felt," we take the chances on his being mistaken. Not that any one who starts such a legitimate enterprise does not deserve success, but simply that he will not, as a rule, obtain it. This is a practical view of the question for which we have often been blamed, but really for no other cause than one would censure a physician for an unfavorable prognosis in any desperate case. It is true medical men should take every medical journal that is printed for them, but, unfortunately, they will not. The kind interest taken in their welfare by medical editors is not appreciated. This is the fault of the subscribers, of course, and not of the journals. We object to this disinterested spirit of benevolence on the part of new journals, and consequently protest against the casting of pearls before swine. The profession generally does not deserve to have any such want supplied, and should be made to suffer. One-sided benevolence, in the long run, is fatal to the enthusiasm of the benefactor, and the sooner the subscribers know it the better. We are impelled to make these remarks by way of introducing the following letter from our friend Dr. J. H. Pooley. The Ohio Medical Journal was well managed editorially, and was calculated to supply any real want felt there for a good journal, but, as Dr. Pooley informs us, a miscalculation was made. He very significantly says:

"The Ohio Medical and Surgical Journal has suspended. It was published to supply 'a want long felt,' but that want having been succeeded by another and more imperative one,—paying subscribers,—the journal ceases to exist. We request the friends of the journal not to aggravate our grief by letters of condolence or expressions of sympathy, but kindly leave us to suffer in silence."

Without wishing to intrude upon private grief we would simply suggest, by way of revenge on the profession in Columbus, that two new medical journals should be forced upon them in place of the one just deceased.

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### STATE BOARDS OF HEALTH.

THE receipt of the first annual report of the Illinois State Board of Health, and of the first annual address to the Connecticut State Board of Health is a reminder of the rapidity with which State medicine is being appreciated and introduced. Ten years ago there was hardly a country which possessed a well-organized system of public hygiene. Now, such systems exist in all the leading nations of Europe, and they are rapidly extending through our various States. In 1869 the first State Board of Health was established in Massachusetts. In 1877 such organizations had been formed in fifteen States. In all cases they have done good work, though often hampered by lack of funds, and in some cases, as in Georgia, temporarily suspended by the exceeding thriftiness of the Legislature. The great value of State medicine, however, is steadily becoming recognized by thoughtful men, and Congress also is likely, in time, to be properly impressed with its importance.

In regard to particular boards, we think that that of Illinois deserves some special mention; for its establishment not only marked the extension of public hygiene westward, but its composition and function contain several novel features. The board is composed of representatives of the different schools of medicine. By law, every person who wishes to practise medicine in Illinois must obtain a license from this board, in order to do which he must either show a diploma from a medical college in good standing, or must pass an examination before the board. The statistics given in the first annual report both show that some law like this was needed and that it has acted very efficiently. There were 3,600 non-graduates practising in the State when the law went into effect; 1,400 of these have since left the State or quit practice; the rest have either secured diplomas, or passed the necessary examination, or have contrived to evade the law. Another result of this law is a great exodus of itinerant quacks, abortionists, etc., from the State. Such persons are obliged to pay one hundred dollars a month for the privilege of advertising themselves and their cures. According to the report of the board, the neighboring States are viewing with great interest and some alarm the effect of this purging of Illinois.

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## Reviews and Notices of Books.

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TRANSACTIONS OF THE MEDICAL ASSOCIATION OF GEORGIA. Twenty-ninth Annual Session, held in Atlanta, Ga., April 17th, 18th, and 19th, 1878.

THE contents of this volume are, upon the whole, very creditable. The address of the president, DR. WM. O'DANIEL, of Bullock, is of the usual type. Among other things, Dr. O'Daniel touches upon the difficulties encountered in obtaining prompt and sufficient remuneration for medical services from a certain class of well-to-do patients, who, it seems, are notoriously neglectful of their obligations in this respect. This he attributes mainly to "indiscretion and a want of thorough organization in the profession," and advises that adequate compensation be exacted from those able to pay, and that when such compensation is refused or neglected, further services should be withheld; and would go still farther, and have these facts made known to the members of the profession interested, and that, after such notice, all those who continue to render services to such persons should be considered violators of ethical law, and be denied professional recognition.

The profession of Georgia are not alone in this particular, and it is to be hoped some plan can be found for remedying this evil, of which others outside of Georgia may likewise have the benefit.

Dr. O'Daniel cordially endorses the work done by

the State Board of Health, and urges the necessity of a committee to memorialize the next General Assembly for an increased appropriation and for sufficient powers to make the operation of the Board more efficient. He has not given the subject too much importance, and it is to be hoped that the committee appointed under the resolution of Dr. A. W. Griggs will have the desired effect.

The annual oration by the late DR. WM. R. BURGESS, of Macon, Ga., is a well written and characteristically conscientious paper. He dwells at length upon "Hasty, Unwise, and Unfortunate Medical Literature," discountenances crude theories and isolated cases, and warns the inexperienced physician from a too ready acceptance of many hasty and premature publications of the medical press.

DR. B. R. DOSTIN, of Early County, read a paper on "Amputation of the Leg for Necrosed Tibia of Thirty-four Years' Standing."

DR. T. F. WALKER, of Cochran, reports a case of "Abnormal Conception," and one of "Eclampsia," and DR. GEORGE J. GRIMES, of Columbus, remarks upon a case of "Tubercular Meningitis."

The paper of Dr. J. C. LE HONDY, of Savannah, is a most valuable contribution upon the subject of "Yellow Fever." He appends a tabulated statement in detail of one hundred and seventy-one cases of yellow fever treated by him in the epidemic which prevailed in the city of Savannah in 1876. It is well worthy of perusal by those interested in the subject.

The paper of DR. JAMES B. BAIRD, of Atlanta, upon "Neuralgia and its Modern Therapeusis," is well written, and his conclusions, in the main, sound.

DR. A. W. CAHOUN, of Atlanta, gave a "Report of One Hundred and Thirty Operations for Strabismus" in his own practice, and concludes by saying that "the absence of all danger, and the great benefits to be gained by the operation, both in a cosmic and visual point of view, should induce every one affected with strabismus to submit to it without delay."

The "Report of the Section on Gynæcology," by DR. A. W. GRIGGS, the paper of DR. S. H. STOUT, upon "Psoriasis Non-Syphilitica," and the considerations of DR. T. S. POWELL upon "The True Physician," possess some interest.

The article, however, by DR. V. H. TALIAFERRO, of Atlanta, upon "The Application of Pressure in Diseases of the Uterus," is extremely interesting, and should be read by every one. The wide range of utility which the principle advocated evidently possesses, and the simplicity of the method, are certainly strong recommendations in its favor. The use of sheep's wool instead of cotton wool for such purposes, is, no doubt, an improvement.

The "Pith of the Dried Cornstalk as a Uterine Tent" is the subject of DR. W. T. GOLDSMITH'S paper. He therein reviews the subject of uterine tents. Whether or not it possesses equal advantages with sponge, sea-tangle, or tupelo, as he claims, still remains to be tested; still it is likely to become a convenient material to many practitioners who live in remote parts of the country.

The different reports upon the sections on surgery, by Dr. A. A. Smith, from third district, and of Dr. Jno. Thad. Johnson, from fifth district, give opportunity for the consideration of cases of "Incised Wound of the Abdomen," "Hemorrhoids," "Perityphlitic Abscess," "Retention of Urine from an Unusual Form of Stricture," "The True Value of Caustics in the Treatment of Venereal Ulcers," "Gunshot Wound of the Head," "Adherent Prepuce," "Rupture of the Uterus," and "Death from Cockle-Burr remaining in the Lung for Twelve Years."

A paper was contributed by DR. WM. A. LEONE, of Atlanta, upon the "Diagnostic Value of the Soft Palate, as compared with the Tongue in Certain Pathological Conditions."

DR. C. B. LEITNER, of Columbus, calls attention to a new dressing for wounds in the form of a "Tar Bandage," and DR. J. B. ROBERTS, of Sandusville, cites an "Obstinate Case of Hiccough."

These various articles comprise the medical subjects offered for consideration, and are certainly an earnest of much good work.

It is to be regretted, however, that so little discussion is usually had at these meetings upon medical subjects.

There is but one way to overcome the usual difficulties of want of time, etc., in this respect, and that is to divide into sections for the discussion of the various subjects, and then report in full session. It would be well for the Medical Association of Georgia in the future to adopt some such plan, thereby saving time and allowing a general expression of opinion; as it is, the papers are generally read by title, and are then referred to Committee on Publication.

The meeting seems to have been well attended and harmonious.

Compared with previous transactions, this one is an improvement. For the work done, congratulations are offered, and we wish the Association a profitable and pleasant meeting at its next session, which convenes April, 1879, at Rome, the home of Dr. Battey. The following is a list of officers for the present year: *President*, John Thad. Johnson; *Vice-Presidents*, Wm. F. Holh, Thomas H. Kenan; *Secretary*, Jas. B. Baird; *Treasurer*, Wm. R. Burgess; *Orator*, E. H. Richardson.

NEW AND ORIGINAL THEORIES OF THE GREAT PHYSICAL FORCES. By HENRY RAYMOND ROGERS, M.D. 12mo., pp. 107. Published by the Author. Trow's Printing and Bookbinding Co., New York, 1878.

THIS work is devoted to the exposition of a new philosophy, the key-note of which is contained in this extract from p. 19: "Let our philosophers but accept the idea that the *sun rouses the earth into action through their mutual relationships; that the two interchange good offices and essential services, rather than that the sun is wholly independent, and simply gives outright, as philosophy has hitherto conceived*, and we think the dawn of a better day has come." The author demonstrates his views clearly, and the argument stands in his favor. We recommend all who are interested in this problem to read this interesting and instructive book.

PROCEEDINGS OF KINGS COUNTY MEDICAL SOCIETY, Dec., 1878.

THE most interesting paper in this volume was one in connection with the presentation of the fissured sternum of the late Dr. Groux. This fissure was two inches wide. It was not an arrest of osseous development but a central fissure, and looking through it within the chest a pulsating tumor, the heart, could be seen. Dr. Groux had the power of stopping the beating of his heart at will, it is said. The question of the possibility of this power was discussed. Both Dalton and Flint, Jr., deny that such power has been proved to exist. Dr. Groux, in some cases, at least, only stopped the pulse at the wrist. The very notable case of Col. Townshend occurred 150 years ago, and was only observed once. J. Milner Fothergill, however, asserts that there is an eminent English physiologist who has this power.

LECTURES ON LOCALIZATION IN DISEASES OF THE BRAIN, delivered at the Faculté de Médecine, Paris, 1875. By J. M. CHARCOT, edited by Bourneville, and translated by Edward P. Fowler, M.D., of New York. 8vo, pp. 133. Illustrations. New York: William Wood & Co., 1878.

THE LOCALIZATION OF CEREBRAL DISEASE, being the Gulstonian Lectures of the Royal College of Physicians for 1878. By DAVID FERRIER, M.D., F.R.S., etc. Demy 8vo, pp. 142, with illustrations. New York: G. P. Putnam's Sons, 1879.

THESE are two newly issued, small, but valuable books. The former will be welcomed in its English dress by the readers in this country, since anything from the pen or lips of M. Charcot is at once treasured by the profession. This author has labored so assiduously in the field of cerebral localization, both alone and in collaboration with M. Pitres and others, that he is in a position to speak *ex cathedrâ*. Our author exposes the anatomico-histological researches of Duret, Foville, Huguenin, Meynert, and others, as well as relates his own pathological observations, and those of others, bearing upon the subject under consideration. The subject matter is excellently arranged, and the text well illustrated by woodcuts. Dr. Fowler deserves our thanks for his very satisfactory and classical translation.

II. Ferrier's work is intended as a supplement to his "Functions of the Brain," wherein he detailed his experiments upon monkeys and other animals. The volume in hand deals in a well-arranged manner with the conclusions to be drawn from the author's experiments on animals as they relate to human physiology and pathology. Each special "centre" is described, mapped out, and illustrated by pathological cases and drawings. The views of Brown-Séquard, Saucerotte, Bouillaud, Hughlings-Jackson, and others are reviewed and criticised. While the author has clearly localized the various divisions of the "motor tract" as the result of his researches in comparative anatomy, he has drawn largely from the observations of Franck and Pitres, Charcot, and a host of others for his support from pathology. In comparing these two works we may say that M. Charcot's book is principally devoted to the study of the minute anatomy of the brain—the circulation, the course and relation of the fibres, cells, etc.—and to the physiology of the great cerebral centres. Nevertheless, the topography of the convolutions is not omitted. In Ferrier's book, however, we are treated to a complete exposition of the physiology of the "motor area," and to this alone. These books are the complement of each other. Possessed of both, the student of cerebral physiology will have the means at hand for a thorough understanding of "localizations," a difficult study.

IS PHTHISIS PULMONALIS CONTAGIOUS, AND DOES IT BELONG TO THE ZYMOTIC GROUP? By W. H. WEBB, M.D. Phila., 1878.

THE aim of this monograph is to prove that both the above questions should be answered in the affirmative. The author has spent much time and research in fortifying his position, which he sustains by clinical testimony and analogical reasoning. Nearly fifty prominent physicians are cited as inclining to the view that phthisis may be contagious. Many strongly illustrative cases are given, and such facts as the absence of phthisis from the South Sea Islanders and North American Indians, before their association with Europeans, are mentioned. Altogether the author makes out a very good case. We believe it to be pretty clearly shown from clinical study and recent laboratory experiments that phthisis *may* be in a certain sense contagious. That it always is, however, or that it is a zymotic disease, can hardly be proved. But the fact of a possible contagiousness is an important one to bear in mind, and thanks are due Dr. Webb for so forcibly calling attention to the matter.

A PRACTICAL MANUAL OF THE DISEASES OF CHILDREN, with a Formulary. By EDWARD ELLIS, M.D., late Senior Physician to the Victoria Hospital for Sick Children; late Physician to the Samaritan Hospital for Women and Children; and formerly Obstetric Physician's Assistant to University College Hospital. Third edition. Pp. 213. New York: William Wood & Co., 1879.

DR. ELLIS'S Manual on Diseases of Children has been issued by Messrs. William Wood & Co. as the second volume of their "Library of Standard Medical Authors." For a ready reference book it is not too much to say of it that we do not know of a book that has so much condensed in 213 pages, and yet not omitting anything essential, as the one under review. It makes no claim of being a systematic work, and therefore omits all controversial questions. Of course, in a work of this kind, there are some points which might have been more fully mentioned. This criticism we think is applicable to the notice of the diseases of the kidney, in which no mention is made of anything but "acute desquamative nephritis." About 40 pages are devoted to "general therapeutical hints and formulary." The volume has a very full index. It is printed on good paper, is well got up, and does credit to the publishers. We notice that the color of the binding comes off and is rather a blemish.

ELEMENTS OF COMPARATIVE ANATOMY. By CARL GEGENBAUR, Professor of Anatomy, and Director of the Anatomical Institute at Heidelberg. Translated by F. Jeffrey Bell, B.A., and translation revised, etc., by E. RAY LANKESTER, M.A., F.R.S., etc. 8vo, pp. 624. London: Macmillan.

THE present volume, although a treatise in itself, is an abridgment of the author's larger volume, which has become so deservedly popular with students of anatomy. The general arrangement of the book is systematic and treats of the subject under the general heads of Protozoa, Cœlenterata, Vermes, Echinoderma, Arthopoda, Brachiopoda, Mollusca, Tunicata, and Vertebrata. Each of these subdivisions are exhaustively treated in detail, and the salient points of differences clearly brought out. In fact, upon the latter method of treatment of the subject rests the real excellence of the work, and makes it a most desirable and valuable text-book for the student.

A MANUAL FOR THE PRACTICE OF SURGERY. By THOMAS BRYANT, F.R.C.S., etc. Second American from third revised and enlarged English edition. 8vo, pp. 945. Philadelphia: H. C. Lea, 1879.

THE work before us is the American reprint of the last London edition, and has the advantage over the latter in being of more convenient size, and in being compressed into one volume. The author has rewritten the greater part of the work, and has succeeded, in the amount of new matter added, in making it markedly distinctive from previous editions. A few extra pages have been added, and also a few new illustrations introduced. The publishers have presented the work in a creditable style. As a concise and practical manual of British surgery it is perhaps without an equal, and will doubtless always be a favorite text-book with the student and practitioner.

# Reports of Societies.

## THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

*Stated Meeting, Feb.* 24, 1879.

DR. A. E. M. PURDY, VICE-PRESIDENT, IN THE CHAIR.

### PRIMARY ACUTE PURULENT INFLAMMATION OF THE MIDDLE EAR.

DR. H. KNAPP read an elaborate paper on the above subject, based on the statistics of 2,527 cases of ear disease seen private, and 6,102 cases seen in hospital practice. Among the former acute perforative otitis media occurred in 182, among the latter in 382 cases, that is, 6.53 per cent. of the whole number. He presented the statistics which he had collected of 27,359 ear patients treated at different institutions in America, and 6,562 patients treated in European institutions. The former showed the occurrence of perforative otitis med. in 6.08 per cent., the latter in 6.27 per cent. of the cases; almost the same proportion in both. Dr. Knapp had anticipated that the rapid changes of the American climate produced a greater number of cases of acute ear disease than the more equable climate of Europe.

As to the *occurrence* of acute purulent otit. med., he had prepared statistical tables, to show the relative frequency of the disease at the different ages of life and different months of the year.

Childhood (1st to 10th year) showed the greatest number, *i. e.*, 32.42 per cent. 62 per cent. of the cases occurred in the winter months; 38 per cent. in the summer months. In 85.71 per cent. of the cases only one ear was affected with perforative acute otitis; in 14.29 per cent. both ears.

#### ETIOLOGY.

The causes of the disease were given as follows:

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|---|---|
| Pharyngitis and rhino-pharyngitis | 37.36 per cent. |
| Coryza | 26.37 " |
| Sea-bathing | 8.79 " |
| Scarlet fever | 7.14 " |

Then followed, with a smaller percentage, diphtheria, measles, pneumonia, improper use of the nasal douche, cold water and alcohol accidentally entering the ear, eczema of the auricle, mumps, and varioloid.

The dangers of sea-bathing were pointed out under two heads: local and general. Local, by the low temperature, the large quantity of salt, the impulse and contamination of sea-water. General, by the great cooling of the whole body, the cold and damp sea-air, and the dampness of the bed linen and covers. Several interesting cases of the disease, caused by diphtheria and the improper use of the nasal douche, were reported.

#### SYMPTOMATOLOGY.

Not entering into the whole symptomatology of the disease, Dr. Knapp presented detailed statements as to the beginning and duration of the otorrhœa and the termination of the disease. Concerning the latter, the following were the results obtained:

Perfect recovery with good hearing took place in 64.83 per cent. of the cases.

| | |
|---|---|
| Discontinued treatment, when convalescent | 7.69 p.c. |
| Transition in chronic aural catarrh | 3.85 " |
| " " otorrhœa | 4.89 " |
| Seen only once | 17.03 " |
| Death | 2.19 " |

It followed that *perfect recovery, at least in* 80 *per cent., was the rule in acute otit. med. pur.* The fatal cases were reported in detail.

#### TREATMENT.

In speaking of the treatment, Dr. Knapp laid greater stress on the necessity of *rest* than was commonly done.

He thought that in acute inflammations of small organs, rest and care were just as essential to secure a complete recovery as in that of large organs, where rest was a matter of necessity, not of choice. The bad and lasting consequences resulting from imprudence and lack of care were convincingly dwelt upon.

The *local treatment* consisted in instillations of warm water into the ear; leeches around the ear; inflation of the drum, at first cautiously through the catheter, afterward according to Politzer's method; attention to the naso-pharyngeal cavity; astringent gargles; nebulizers; posterior nares syringe; steaming of the ear when the disease had suddenly ceased and the pain continued or increased; paracentesis of the drum; opening of the mastoid process; incisions down to the bone in the meatus and behind the ear, to liberate subperiosteal collections of pus; cleansing of the ear by syringing and wiping with a dentist's cottonholder; the use of astringent injections into the ear, which in the acute period should be avoided and afterward be suited in strength to the copiousness of the discharge and the proliferation of the mucous membrane. The indications, dangers, results, and the manner of application of the different modes of treatment, were duly dwelt upon. The paper will be published *in extenso* in the forthcoming number of the *Archives of Otology.*

The paper being before the Society for discussion—

DR. D. B. ST. JOHN ROOSA remarked that he fully agreed with most of the conclusions reached by the author of the paper, and believed that that fact indicated there must be exactness in our knowledge upon this subject, because they were conclusions which had been reached by two men, who were working apart, and yet in the same department.

With reference to the question of statistics, there was a singular unanimity in those presented in Germany and in this country.

The proportion of acute suppuration of the middle ear, in one thousand cases, reported by Dr. Roosa, some years ago, was a little under three per cent. The proportion was increasing somewhat; and out of 3,173 ear cases occurring in his private practice, 102 were acute suppuration of the middle ear, one or both sides. The proportion was even greater than that; because he saw a considerable number of cases which were not recorded. Apart from statistics, he thought it was true that there was much more acute aural suppuration than either the speaker or himself knew about. For, many, if not all the cases of chronic aural catarrh, which were seen in such large numbers, were once acute cases. Besides that, earache occurred so commonly in childhood that many general practitioners never thought of reporting the fact; and nearly always those cases of earache were cases of acute aural catarrh, and often cases of acute aural suppuration. Among patients suffering from chronic aural catarrh it was a very common observation that they had been "getting deaf for several years, and finally thought it was time to see something about it," and in that way we obtained the knowledge that many cases of acute aural trouble were not seen by a physician. There were practitioners (they did not live in New York, he hoped) who absolutely ignored earache; and if they were to go into a house to prescribe for a case of

pneumonia or other disease, and were told that some member of the family was suffering from most intense pain in the ear, they would not listen to the story, much less prescribe for the case. Some of them would direct that the ear be wrapped up well with a poultice, and would tell the mother that "when the drum-head had broken Johnny would be better." But there was a great deal of acute aural disease which was recovered from very rapidly. To illustrate: he not long since saw a patient who first felt pain in the ear at about six o'clock, and at ten o'clock in the same evening the drum of the ear was very red; there was intense pain and other evidence of acute aural catarrh. A few applications of warm water from a tablespoon, without any other treatment, quieted all the symptoms. The patient slept well; and the next morning, upon examination, it was found that there was only a mere trace of redness of the membrane remaining.

With reference to the question of *rest*, he was not aware that any, who treated aural disease to any great extent, would doubt the correctness of the advice given by the author of the paper. What the author of the paper had said with regard to the *serious nature* of acute suppurative inflammation of the middle ear could not be overestimated.

With reference to paracentesis of the drum-membrane, in cases of acute catarrh of the middle ear, he thought the operation had very probably been overdone. There had been such a lethargy with reference to treatment of acute aural disease that it was necessary to insist upon operative interference in proper cases, and that had led to the opinion that otologists opened every drum-head which was reddened. But they did not do anything of the kind. The treatment of acute aural catarrh or acute aural suppuration was the simplest which could be imagined. If the ear was kept clean by the gentle use of warm water, the patient kept in bed, the pain subdued by the use of opium, and the bowels kept open, nothing, except an unwise interference, would prevent the drum-head from being restored, even when the disease had gone on to perforation.

He expressed his sympathy in the effort which the author of the paper had made to impress upon every one the importance of properly treating this important affection.

Dr. C. R. Agnew remarked that he agreed essentially with Dr. Knapp, and felt personally indebted to him for this admirable *résumé* of the subject. He did not think that Dr. Knapp would claim to start a new school of otology or to set forth views which were peculiar. They were those which were quite surely justified by the practice of all who treated diseases of the ear. We all appreciated the absolute necessity of rest, and practically that was secured because of the inability of the patient to locomote and pursue his ordinary avocation.

Dr. Agnew, however, was not quite so certain that his experience would lead him to the conclusion that rest in the supine posture was so valuable in these cases as Dr. Knapp's experience had led him to consider it to be. He had had the misfortune to have two attacks of acute inflammation of the middle ear, which, fortunately, resolved without perforation. He very well remembered the first attack, which came on about eleven o'clock at night, and the pain was so extremely severe that he found rest in the supine posture impossible, and he was obliged to rise from his bed and walk about the room. He took morphine freely, and while walking about the room, it asserted its hypnotic effect so strongly that he was obliged to lie down; but as soon as he assumed the supine position the pain returned, and he was compelled to seek the upright posture. He had, therefore, recommended patients to sit rather than lie, and he thought the effect upon the circulation was favorable to resolution of the inflammation.

With reference to local depletion, he thought the same effect upon the inflammation might be obtained by applying a single leech just within the external auditory canal, as by applying several about the ear.

With reference to the use of warm water with a syringe or spoon, he agreed with the author of the paper and the speaker who had preceded him.

He thought it probable, if called in consultation with the same gentlemen, that he should agree with reference to the evidence which was to decide the question of paracentesis, but he did not think his experience justified the assertion that, when a drum-head was bulging, it was better to make a paracentesis than to wait until the lapse of one or two days in order to see whether discharge would not take place from the Eustachian tube. He thought, however, the possible damage which might be done to the mechanism of the middle ear by matter held in the drum-cavity was much greater than any possible injury which could come from paracentesis of the drum-head, provided syringing of the external auditory canal was avoided. He felt bound to say that he had never seen mischief done to the ear by paracentesis under circumstances which Dr. Knapp had described, when the drum-head was bulging and there was threatening perforation. The analogy between certain conditions of the eye, calling for puncture of the cornea, and certain conditions of the middle ear, calling for paracentesis of the drum-head, was a good one; but, like other parallels, it must not be pushed too far. He thought the paper by Dr. Knapp would put the subject of otology upon a better basis than it had heretofore occupied.

Dr. Prout directed attention to the effect produced in the ears by sea-bathing. He thought Dr. Knapp did not dwell sufficiently upon the passage of water into the middle ear through the Eustachian tube. He believed it occasionally happened that water entered the middle ear through the Eustachian tube, especially when the person swam upon the back.

He objected to the analogy between paracentesis of the cornea for hypopyon and paracentesis of the drum-membrane in acute suppurative inflammation of the middle ear. He favored paracentesis in cases of inflammation of the middle ear, rather than paracentesis of the cornea in cases of hypopyon. If there was not sufficient fluid to cause bulging of the drum-membrane, but simple redness, paracentesis should not be performed.

For local treatment he had found a useful combination to be laudanum, glycerine, and borax water, in acute external or middle ear trouble.

Dr. Samuel Sexton thought the operation of paracentesis was now carried too far. His attention had just been drawn to a report where the operation was performed forty-five times in an institution where only thirty-seven cases of acute purulent inflammation of the middle ear were reported, and he also found, on reviewing his own cases in the New York Ear Dispensary, he had operated on one-sixth of all such cases which were there treated. Saunders, the English surgeon, who was perhaps the first to recommend the operation, over seventy years ago, drew the line for operating when the accumulation of fluid in the tympanum partook of the nature of an abscess which threatened to burst, which was a good guide after all.

Dr. Sexton expressed his surprise that greater importance had not been given in the paper to the symptom of pain. When called to these cases, his first concern was to alleviate the anguishing pain which attended them, and to allay inflammation. In a great number of acute purulent inflammations of the middle ear there would be found to exist painful inflammations of the connective tissue in the neighborhood of the tympanum. In such cases suppuration was often averted or hastened to a conclusion by maturation, under the use of calcium sulphide, and, during its use, pain was in many instances greatly alleviated. As to the use of Politzer's air-douche in these cases, Dr. Sexton was not in the habit of resorting to it, as he saw no advantage to be gained by inflating the middle ear in acute cases; and reference having been made to the increase of the acuity of hearing during the period of inflammation, he would say that he regarded the temporary improvement of hearing as secondary in importance to the relief of pain and inflammation.

Dr. A. H. Buck remarked that he had little more to say than to lay rather more stress upon the use of warm water in the beginning of acute ear trouble. He believed that early in the disease, especially in children, if the membrana tympani could be poulticed by pouring warm water into the ear with a spoon, in a great majority of cases the ear trouble could be arrested. Upon that practical point he would lay great stress. With reference to the question of paracentesis, he held the view expressed by Dr. Agnew. He believed that the harm which came from the operation, when properly performed, was small when compared with the harm which came from abstaining from its performance. The indications for the operation were so clear it seemed strange that any one should hesitate to resort to it, namely, bulging of the drum-membrane remaining after leeches, warm water, and simpler means had failed to afford relief. The pain was due to the pressure, and the incision relieved the pressure. He believed that the lack of success in the treatment of subacute and acute purulent inflammation of the middle ear was due largely to the fact that we had no more definite instructions relating to local treatment than the simple statement, use instillations of this, or that, or the other remedy. He thought the entire secret of success in treatment was found in adopting certain minute procedures. In the first place, the ear should be thoroughly cleansed, and then if instillations simply were used, the chances were that the remedy would not reach the membrane lining the middle ear, or at least reach it in very small quantities.

Dr. C. E. Hackley remarked, with reference to keeping the patient quiet, that it might seem almost impossible, but he thought those who had paid any special attention to diseases of the ear had frequently noted the difference between acute otitis media and boils occurring in the ear. Where the pain was as great in the one as in the other, the patient suffering from otitis media was inclined to keep quiet, whereas, if suffering from a boil in the ear, he was upon the constant move.

In the beginning of the disease he had seen as much relief follow snuffing warm water as from instillations into the ear. In children who could not adopt that method, he had observed decided benefit from the use of opium internally, in small doses.

With reference to etiology, he had learned, incidentally, that perforation of the drum of the ear was nearly as common in one lying-in asylum as was purulent ophthalmia in other institutions.

He believed that ear trouble following sea-bathing was frequently caused by sea-water entering the middle ear through the Eustachian tube.

Dr. O. D. Pomeroy remarked that he concurred in nearly all the statements which had been made, and added something in the way of personal experience with regard to relieving pain. He thought sufficient stress had not been laid upon measures for relieving that symptom. He had been accustomed to use warmth, perhaps more than others, and had employed dry rather than moist warmth. He was prejudiced against the use of moist warmth, because he had seen otorrhœa induced by its use. He referred to a case in which poultices had been faithfully employed in the treatment of acute otitis media, and, when they were removed, the pain soon ceased, and recovery followed without further treatment. Indian-meal, heated until browned and then put into a bag which could be fastened to the ear, was with him a favorite application. A hot brick wrapped in a napkin, or a bottle of hot water, was serviceable. For the relief of pain in the ear in small children, he had obtained good results from the use of a small quantity of black pepper wrapped in cotton and introduced into the ear; it relieved pain in a remarkable manner, and with that the inflammation.

He had been able, in his own case, to trace the attack up the Eustachian tube, and many times had been able, by applying a strong solution of nitrate of silver (60–80 grs. to the ℥ i.) to the throat, to relieve the pain and arrest the further progress of the disease.

Dr. E. Gruening referred to opening the mastoid process in cases of otitis media. He had performed the operation *seven* times—five times in chronic cases, and *twice* in acute cases. He was confident that in the acute cases he saved the lives of the patients, and from those cases felt that the indications for the procedure could be formulated.

The first patient was a man thirty years of age, who had acute otitis media from bathing. Perforation of the drum-head occurred; but, in spite of that, the inflammation spread to the mastoid cells. The skin over the process became red, there was great pain, and the process was painful upon pressure. An incision was made, and for some hours the pain was relieved. The pain returned. The incision was enlarged, and it bled freely. High fever developed, there was severe pain in the head, the patient became delirious, and had a rigor. Dr. A. H. Buck was called in consultation, and it was decided to open the mastoid process. An abscess was found, a quantity of pus escaped, complete relief followed, and the man recovered.

In the second case the indications were the same, and the operation was performed with the same result. Dr. Gruening was surprised that none of the gentlemen had mentioned the operation, especially as Dr. Knapp had said that he was not in favor of it.

Dr. Pinckney alluded to the similarity between the symptoms in fatal cases of inflammation of the middle ear and the symptoms of typhoid fever, and thought there might be danger of mistaking one for the other.

Dr. F. A. Castle referred to the fact that in very small children there was a liability, because of the inability of the child to direct attention to the seat of pain, to overlook acute inflammation of the ear, and thus many cases were permitted to go on to suppuration and perforation of the drum-membrane.

Dr. Knapp, in closing the discussion, subscribed to the suggestion made by Dr. Agnew, with reference to the erect posture. He dwelt upon rest in bed, be-

cause he regarded it as most favorable in reducing the action of the heart and breaking the force of the circulation.

With reference to opening the mastoid process, he had simply related his own experience; but certainly if pus was retained there, and it could be diagnosticated as such, the operation should be performed. He thought the indications were not very frequent, since the exit of that pus into the middle ear would not be difficult. The operation became necessary chiefly when, in chronic cases, the mouth of the antrum became plugged with inspissated material.

With reference to applying a leech to the inner surface of the auditory canal, because a greater effect would be produced than by applying leeches about it, he thought that was true, but the objection which he had was that leech bites were sometimes followed by erysipelatous inflammation, and in that case the tissues became swollen, filled the canal and prevented the discharge from the ear from escaping readily.

With reference to the question by Dr. Prout concerning diagnosis, Dr. Knapp states that he had entered only such cases as really showed a discharge.

With regard to instillations reaching different portions of the drum cavity, he meant to state that, in the beginning of the disease, antiphlogistic treatment, by rest in bed, etc., was the principal feature, and that he preferred to treat the parts about the drum cavity rather than the drum cavity with remedies; resolution would take place in the natural decline of the inflammation. He had found in his experience that the use of caustics, and strong astringent solutions, in the first stage of acute inflammation of mucous membranes, was apt to aggravate the inflammation, even giving it a different character. Afterwards the rule was entirely different.

On motion made by Dr. Piffard, a vote of thanks was extended to Dr. Knapp for his valuable paper.

The Society then proceeded to the transaction of business.

Dr. Samuel Sexton was elected delegate to the State Medical Society, to fill the vacancy caused by the election of Dr. Horace P. Farnham as permanent member.

The Society then adjourned.

# Correspondence.

## THE POWER OF CARBOLIC ACID TO ABORT THE PUSTULATION OF SMALL-POX.

Ching-Kiang, China, Jan. 30, 1879.

To the Editor of The Medical Record.

Sir:—In the "Record" No. 421, November 30th, it is stated on the authority of "*The Lancet*" that the efficacy of carbolic acid in aborting the eruption of variola is proved to be nothing; and secondly, that further investigation is required.

Of the value of the acid as an internal agent in the treatment of small-pox I am now unable to speak, but I have good reason to regard it as possessing power to abort pustulation if brought in direct contact with the eruption. For the past six years it has been my sole remedy in the treatment of small-pox, with the exception mayhap, of a night draught or a laxative—and during that period I have used it constantly in a somewhat extensive foreign and native practice. I cannot better explain my method of treatment, than by an example from my case-book:

E. S., aged 34, merchant, has not been vaccinated since infancy; was taken ill at Shanghai, January 10th, twelve days after his visit to a man-of-war in this port of Ching-Kiang, on which small-pox had appeared some days before. Returned to his home on the third day after the disease had declared itself, and I saw him at midnight. Patient delirious; high fever; pulse 130; temperature 102°. He was at once placed in a large apartment with an open fire, the windows were opened, and venetians closed to exclude light. (The windows were not again closed during his illness, although snow fell, and the weather was unusually severe.)

January 14th.—The eruption has appeared, the face is much swollen, the eyes cannot be opened, there is a copious flow of saliva, and the patient is unconscious. Pulse 110; temperature 100°. Ordered to have face, neck, and arms frequently and freely anointed with a solution consisting of acid carbolic, ʒ jss.; glycerine water, ℥ss, ʒ i., and to have the entire body sponged twice daily with a like solution.

January 16th.—Patient much better. Pustulation fully accomplished, and there is no delirium, and little fever. The pulse never again rose beyond 86, or the temperature above 99°. On the eighteenth day he visited me at my office, and while his face exhibited proof of how extensive had been the eruption, I was able to assure him there would be little sign left of his trouble, and so it proved, for I saw him after an interval of a year, and the pits on his face were limited to five.

I have not spoken of his secondary fever, because there was none, and it is a stage in small-pox I have long ceased to anticipate, regarding it as "dependent on absorption into the circulation of pus in a state of decomposition, or some product arising therefrom," which may be destroyed as formed, or even its formation prevented by an antagonistic agent, like carbolic acid. The application of a strong solution at first gives great pain, but very shortly is readily submitted to, even asked for, as it allays irritation, and the desire to scratch. Those pustules which are disposed to coalesce remain discrete, while those which are scattered fail to reach the size arrived at on such parts of the body, where, experimentally, the lotion is not applied. This at least has been my experience.

Yours faithfully,

A. R. Platt, *Medical Officer.*

Imperial Maritime Customs, Ching-Kiang, China.

# Obituary.

## JOHN M. WOODWORTH, M.D.,

SUPERVISING SURGEON-GENERAL, MARINE HOSPITAL SERVICE.

The news of the death of Supervising Surgeon-General John M. Woodworth was wholly unexpected, save by those who were in attendance upon him during the last days of his illness. Within a week of his death he was seized with typhoid pneumonia, complicated with erysipelas, and being already much worn down by the arduous duties of his office, his remaining vital energies rapidly succumbed. Death occurred Friday, March 14th. Dr. Woodworth was born at Big Flats, Chemung Co., N. Y., Aug. 15, 1818. His parents soon after removed to Illinois, and at the War-

renville Seminary young Woodworth commenced his preliminary education, completing it at the University of Chicago. He next studied pharmacy, engaged in business, at the same time he commenced the study of medicine, graduating in 1862, in the Chicago Medical College. He then entered the army, first as Assistant Post Surgeon at Camp Douglas, and afterward in the field as Assistant Surgeon of volunteers. He was with Sherman's army from Corinth to the sea, being successively promoted to Surgeon, Medical Inspector of the Fifteenth Corps, and Medical Director of the Army of the Tennessee. He was complimented in general orders for his energy in the establishment of field hospitals during the Atlanta campaign, and again, in the subsequent campaign, for his moving ambulance hospital, which carried 100 wounded men from Atlanta to Savannah and placed them in hospital there without the loss of a single life, although a number of important operations had to be performed by the way. Brevetted Lieutenant-Colonel for distinguished services, three years after being mustered out of the service, he was appointed Post Surgeon of the Soldiers' Home at Chicago, and Sanitary Inspector of the Board of Health.

He then visited the hospitals of Berlin and Vienna, remaining abroad a year, and returning to Chicago, commenced the practice of his profession. The marine hospital service having been created in 1871, he became its chief officer, with the title of Supervising Surgeon-General. It is an act of ordinary justice to the deceased to say that the present efficiency of the service is due to his skilful system of organization and his remarkable executive ability. He discarded the system of appointing on political grounds, introduced competitive examination, and substituted the wholesome and inexpensive pavilion hospital for the heavy, costly, and badly-ventilated structures he found in use. Marine and hospital hygiene were his specialties; but as a naturalist he was scarcely the inferior of Prof. Baird, and as a histologist ranked as an expert, having passed the winters of 1859, 1860, and 1861 under the tutelage of the former in the Smithsonian Institution, and served as Professor of Histology for a year or more in the college at which he was graduated. His principal scientific works and papers are: the "Mystery of Life," published in 1871; "Regulations of the United States Hospital Marine Service," 1873; "Hospitals and Hospital Construction," 1873; "Cholera in 1873 in the United States;" "Migrants and Sailors in their Relation to Public Health;" "Safety of Ships and those who Travel in Them," and "Quarantine with Reference to Yellow Fever." His work on the "Nomenclature of Diseases," 1874, is the standard reference of the marine hospital service.

Largely through his instrumentality the National Quarantine Act became an accomplished fact, and by his prompt and skilful interpretation of its provisions he achieved a national reputation. During the late yellow fever epidemic he devoted himself to the sufferers and succeeded in establishing a commission of inquiry, which was afterwards merged into that of the Commission of Experts, of which he was appointed by Congress as president *ex-officio*. With the work done by this commission our readers are already sufficiently familiar. During the past few months Dr. Woodworth devoted himself to the procuring of legislation bearing upon the creation of a National Health Bureau. His untimely death will be greatly regretted by the medical profession, and by that large class of persons whom he was the means of befriending in their dire calamities.

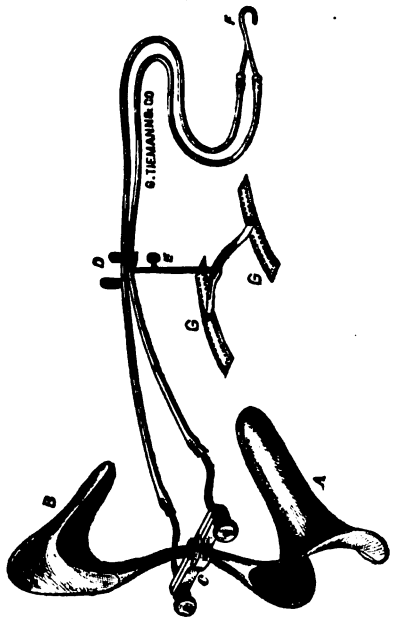
# New Instruments.

## AN ADDITION TO THE SIMS'S SPECULUM FOR MAKING THAT INSTRUMENT SELF-RETAINING.

By B. E. FRYER, M.D.,

SURGEON U. S. ARMY.

We have devised a very simple addition, which can be made to any Sims's Speculum, and which readily allows of that instrument being used as a self-retaining one. The accompanying wood-cut illustrates the speculum with this addition applied to it.




A and B are the blades of the instrument; at C two parallel bars, running at right angles to the shaft of the speculum, are clamped firmly by circular milled nuts, which turn upon two cylindrical bars, which latter, at their further extremity, are slightly curved. Upon each of the ends of the curved bars is fastened a piece of India-rubber tubing, and the tubing is united in a metal hook at F. At D, the tubes pass over what we call the "bridge," which has a base at C. The vertical portion of the bridge allows of being raised or lowered, and of retention at the desired height by a screw at E.

The flange of the blades, or specular portion of the instrument, is modelled after that of Emmet, and these blades are so bent as to make with the handle or shaft an angle less than that in the Sims's instrument as usually made; this lessened angle, as is now generally known, having been found a more convenient one.

The mode of using the instrument is quite simple. The cross-bars being loosened by turning the milled nuts, are slid up the handle out of the way, the blade to be used is introduced (the patient being of course in the Sims's position) the cross-bars are brought down again, as shown in the woodcut and fastened; the bridge is placed on the patient's sacrum, over the clothes, and the rubber tube carried over the patient's right shoulder. The operator now draws upon the

speculum, as is done in the Sims's instrument until sufficient perineal retraction is had, when the tubes, which have been carried over the patient's right shoulder, are drawn upon by the patient (or assistant), and either held in her right hand or are fastened by the hook to a staple in the table on which she is lying. It will be found that a very slight strain by the patient will retain the instrument, for the tubes bind, as it were, upon the shoulder, and allow of the retention of the instrument by a but comparatively slight muscular effort; and even if this effort is impossible, as it would of course in a prolonged operation, and in any case under anæsthesia, the hook could be easily fastened so as to hold the instrument firmly. The elasticity of the rubber tubes, it will be found, equalizes the tension admirably.

Of course it is understood that for the specialist, practising in a large city and with well trained assistants and a good nurse always at command, a self-retaining instrument is not essential, but for the general practitioner, who is frequently prevented from using the Sims's instrument, which is the best of all specula, simply from the difficulty in obtaining such aid, it is believed that a satisfactory self-retaining instrument will be very advantageous and desirable.

The instrument is made by Messrs. G. Tiemann & Co., New York.

In drawing the illustration of the instrument, the draughtsman has made a slight error, which however is unimportant and which will be readily understood. The curved bars, to which are attached the rubber tubes, should be turned a half circle, if the blade A is being used, which in the engraving it is represented as. The illustration shows the bars in proper position for the use of the blade B.

FORT LEAVENWORTH, KANSAS, *February*, 1879.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 9 to March 15, 1879.*

TOWN, F. L., Major and Surgeon. To accompany the first detachment of recruits to the Pacific Coast, and upon completion of this duty report in person to the Commanding General, Department of the Columbia, for assignment to duty. S. O. 58, A. G. O., March 11, 1879.

TILTON, H. R., Major and Surgeon. To report to Commanding General, Department of the Missouri, for assignment to duty. S. O. 58, C. S., A. G. O.

DEWITT, C., Capt. and Asst.-Surgeon. To proceed to New York City, report in person to the President of the Army Medical Board for examination, for promotion, and upon completion of examination rejoin his proper station. S. O. 58, C. S., A. G. O.

LAUDERDALE, J. V., Capt. and Asst.-Surgeon. Assigned to duty at Mt. Vernon Barracks, Ala. S. O. 40, Department of the South, March 6, 1879.

DELOFFRE, A. A., First Lieut. and Asst.-Surgeon. To report in person to the Commanding General, Department of the South, for assignment to duty. S. O. 58, C. S., A. G. O.

PORTER, J. Y., First Lieutenant and Asst.-Surgeon. Granted leave of absence for one month, from 1st proximo. S. O. 41, Department of the South, March 7, 1879.

POWELL, J. L., First Lieut. and Asst.-Surgeon (recently appointed). To report in person to the Commanding General, Department of Texas, for assignment to duty. S. O. 58, C. S., A. G. O.

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending March 15, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| Mar. 8, 1879.. | 0 | 4 | 198 | 2 | 1 | 52 | 0 | 0 |
| Mar. 15, 1879. | 0 | 7 | 215 | 1 | 17 | 39 | 0 | 0 |

VITAL STATISTICS OF NEW YORK FOR 1878.—The Health Department of the City of New York furnish the following statistics:

Population of the City of New York, according to the New York State Census, estimated July 1, 1878, was 1,083,371; total births (not including still-births), 25,729; total marriages, 7,629; total still-births, 2,192; total deaths (not including still-births), 27,008; total deaths of children under 5 years of age, 12,410.

*Percentage to the total mortality.*—Deaths of children under 5 years of age, 45.95; deaths of persons 5 years of age and over, 54.05.

*Number of deaths from*—Small-pox, 2; measles, 273; scarlatina, 1,099; diphtheria, 1,007; croup, 499; whooping-cough, 382; typhus fever, 4; typhoid fever, 245; cerebro-spinal fever, 97; phthisis pulmonalis, 4,466; pneumonia, 2,288; bronchitis, 1,184.

*Diarrhœal diseases.*—Children under 5 years of age, 2,598; all ages, 2,945.

Death-rate per 1,000 inhabitants, 24.93.

*Meteorology.*—Mean temperature (Fahr.), 53.52; mean pressure (barometric inches), 29.850; mean humidity (saturation 100), .74; number of miles travelled by the wind, 54,988; total rain-fall (in inches), 48.66.

TÆNIA MEDIOCANELLATA.—At a recent meeting of the Philadelphia Academy of Natural Sciences, Prof. Leidy exhibited two specimens of tapeworms, *Tænia Mediocanellata*, both retaining the head. These had been recently submitted to him for examination by Dr. James J. Levick and Dr. Walter F. Atlee. Tapeworm appears not to be a common affection with us. Several physicians, in extensive practice in Philadelphia, had informed him that they never had a case. During the last ten or fifteen years from one to two specimens annually had been submitted to him, but the present year he had seen five specimens. He had been surprised to find that all pertained to the species indicated. Formerly he supposed that our common species was the *Tænia solium*, but later experience would indicate that the *Tænia mediocanellata* is the more common. The distinction between the two had been observed only comparatively recently, so that no doubt many specimens formerly attributed to the former actually belonged to the latter.

When the head is present the two species are readily distinguished. The *Tænia solium*, whose larval form is found in the "measle" of pork, has the head provided with a crown of hooks. *Tænia mediocanellata*, derived from beef and mutton, has a larger head, which is unarmed. The ripe segments are also usually readily distinguished in the two species. In the *Tænia mediocanellata* the ovaries are divided into many more pouches than in *Tænia solium*.

In Dr. Levick's case the man had been in the habit of eating raw buffalo meat. In one of the specimens exhibited, the suckers of the head appeared as black spots, from the black pigment on their interior surface. The genital apertures were also black from the same cause. In the other specimen the head appeared less black from pigment about and around the position of the suckers, and the genital apertures do not appear black.

THE PHILADELPHIA WOMAN'S MEDICAL COLLEGE COMMENCEMENT.—The annual commencement was held in Association Hall, Philadelphia, on March 13th. The exercises were opened with a prayer by the Rev. Dr. D. O. Kellogg. T. Morris Perot, Esq., President of the Board of Corporators, conferred degrees upon twenty graduates. The degree of M.D. was also conferred upon Rachel L. Bodley, A.M., the Dean of the College. The valedictory address was delivered by Prof. Clara Marshall, M.D. The prize of $50 for the best report of the lectures during the past term was awarded equally to Anna S. Kugler and Louisa Schneider, both of Pennsylvania.

THE COMMENCEMENT OF THE MEDICAL SCHOOL OF THE UNIVERSITY OF PENNSYLVANIA.—The Alumni Association of the Medical Department of the University of Pennsylvania held its annual meeting on Thursday evening, March 13th. The oration was delivered by Dr. Steiner, of Maryland. The following officers were elected: President, Geo. B. Wood; Vice-Presidents, John L. Atlee, Meredith Clymer, W. W. Ruschenberger, and T. J. Gallagher; Treasurer, Wharton Sinkler; Executive Committee, Hiram Corson, Ed. Hartshorne, Wm. Hunt, Andrew Nebinger, John H. Packard, H. Lenox Hodge, James H. Hutchinson, James Tyson, Wm. F. Norris, Samuel Ashhurst, Thomas J. Yarrow, R. A. Cleemann, Wm. Pepper, S. S. Stryker, C. B. Naucrede, DeF. Willard, Louis Starr, Charles Baum, Charles M. Seltzer, and Thomas H. Hathcart; Corresponding Secretary, H. R. Wharton. The orator for 1880 is Traill Green, of Easton, Pa.

The annual commencement of the Medical Department of the University of Pennsylvania took place on Friday, March 14th, at the Philadelphia Academy of Music. The exercises were opened with prayer by the Rev. Samuel E. Appleton, D.D., after which Provost Stillé conferred the degree of M.D. upon ninety-one graduates, and that of D.D.S. upon twenty-five graduates. The first prize of $100 for the best essay was awarded to Wm. G. Davis, of Pennsylvania, and the second prize of $100 was divided between F. H. Hathcart and D. Cerna, of Pennsylvania. Those who were mentioned as distinguished were G. E. Abbot, Ph.D., Wm. H. Burk, and Wm. E. Casselberry, Pennsylvania; J. M. Frazier, Texas; Peter McGough, Pennsylvania; E. T. Reichert, Pennsylvania, and J. S. Stone, W. Virginia. The gold medal anatomical prize was awarded to Frank O. Nagle, of Pennsylvania, and the prize for the best list of anatomical anomalies found in the dissecting room to L. P. Carbonell, Cuba. The valedictory address was spoken by Prof. John Ashhurst, Jr.

PREGNANCY IN THE ELEPHANT.—At the invitation of Mr. Tule, the manager of the "Great London Circus," a number of medical gentlemen, among whom were Professors Joseph Leidy, R. A. F. Penrose, and Harrison Allen, of the University of Pennsylvania, and Drs. Henry C. Chapman, John H. Brinton, and Frank F. Maury, visited the winter quarters of the circus at Twenty-third Street and Columbia Avenue, in Philadelphia, on Friday, March 14th, in order to inspect a female elephant said to be pregnant.

During the course of the examination some points of great interest to the medical and scientific world were brought out.

The female elephant believed to be pregnant had been covered twice by a male elephant at Concord, New Hampshire, on the 25th of May, 1878. At the time of examination she was consequently in the tenth month of pregnancy.

The two breasts, which are situated immediately between the front legs in the elephant, were full and swollen. The nipples were very prominent, and pointed outwards and downwards instead of directly downwards. The milk veins on the surface of the abdomen were also very prominent.

The general opinion hitherto held with regard to the act of copulation on the part of the elephant has been that it is performed while the female lies on her back. This is the view taken in all works on the subject. Additional reasonableness was no doubt lent to this view by the fact that the penis of the male elephant when artificially caused to be erected by titillation of the rudimentary mammary glands points downwards and backwards, the glands curving inwards upon itself, and not forwards and upwards as in the human species, and that this state of affairs seemed to be demanded by the position of the urethra in the female, the opening of which lies well between the hind legs, and the calibre of which points almost directly upwards towards the rectum.

In this instance, however, the act of copulation had been twice performed, and on both occasions the male had mounted upon the back of the female, and the penis, instead of curving backwards as is the case under artificial sexual excitement, had *curved forwards and upwards*. These facts were very thoroughly authenticated. This proves that previous ideas upon this subject have been altogether erroneous.

The fact was shown, to the great wonder of those present, that the elephant's height is always equal to twice the circumference of the soles of its feet, the natives in India employing this means of determining the height of a captured elephant.

Curious glands, sebaceous in origin, were pointed out by the keeper in the roof of the elephant's mouth and behind the eyes. In the glands behind the eyes wax is wont to accumulate, and causes much annoyance to the elephant unless removed.

It was further shown that the tongue of the elephant does not possess any frænum.

As the period of normal pregnancy in the elephant is twenty months, it was expected that the calf would be born, if nothing unforeseen should occur, on January 25th, 1880. The birth of an elephant calf away from India is a great rarity.

TRANSACTIONS OF THE KENTUCKY STATE MEDICAL SOCIETY, Frankfort, Ky., April, 1878.—Besides the regular contributions on medical subjects, several memorial addresses were delivered on the late Dr. L. P. Yandell. Dr. Charles H. Todd, of Owensboro, was elected *President*, and Dr. L. S. McMurtry, of Danville, *Secretary* for the ensuing year.

RUSH MEDICAL COLLEGE.—Dr. James Nevins Hyde has been made a professor of "Dermatology and Venereal Diseases" in Rush College; and Dr. John E. Owens has received the appointment of professor of "Orthopedic Surgery" in the same institution. Both Chairs are now, for the first time, established in the regular course of this college.

JEFFERSON MEDICAL COLLEGE COMMENCEMENT.—At the annual meeting of the Alumni Association of Jefferson Medical College, held on Tuesday afternoon, March 11th, the following officers were elected: President, Sam'l D. Gross, M.D., LL.D. Vice Presidents, Addinell Hewson, M.D.; Edward Caswell, M.D.; Elwood Wilson, M.D.; and P. S. Connor, M.D. Treasurer, Nathan Hatfield, M.D. Recording Secretary, Thomas H. Andrews. Corresponding Secretary, Richard J. Dunglison. The Annual Address before the Alumni Association was delivered on Tuesday evening, March 11th, in the lecture room of the college hospital, by Dr. Edward T. Caswell, of Providence, R. I., in the presence of a large audience. The subject of the address was "The Present Phase of the Alcohol Question from a Medical Point of View."

The Fifty-fourth Annual Commencement of Jefferson Medical College was held in the Philadelphia Academy of Music, on Wednesday morning, March 12th. The Rev. Thomas F. Davies opened the exercises with a prayer, after which Dr. Gardette, the President of the Board of Trustees, conferred degrees upon *one hundred and ninety-six graduates.*

The following prizes were awarded by the Dean:—A prize of $100, by Henry C. Lea, Esq., for the best thesis, to Henry C. Boenning, of Penn., with honorable mention of the theses of Frank E. Stewart, of New York; Wm. L. Kneedler, of Pa.; Carlos M. Brown, of Cal.; Monroe Bond, of New Hampshire, and Wm. S. Hoy, of West Va. A prize of $50 for the best essay on a subject pertaining to surgery, to Bernard R. Lee, of Pa., with honorable mention of the theses of Norman H. Chapman, of Illinois, and Henry Ness, of Pa. A prize of $50 for the best anatomical preparation, to Wm. L. Kneedler, of Pa. A prize of $50 for the best essay on a subject pertaining to obstetrics, etc., to David C. Lichliter, of Va., with honorable mention of the theses of Howard F. Hansell, of Pa. A prize of $50 for the best essay on a subject pertaining to Materia Medica and Therapeutics, to Louis Weiss, of Colorado, with honorable mention of the thesis of Albert T. Poffenberger, of Pa. A prize of $50 for the best essay on a subject pertaining to Physiology, to Wm. C. Caball, of Del. A prize of $50 for the best essay on a subject pertaining to the theory and practice of medicine, to Jno. L. Yard, of Pa., with honorable mention of the thesis of Wm. L. Rodman, of Kentucky. A prize of $50 for the best essay on a subject pertaining to chemistry, to Geo. W. Cram, of Pa., with honorable mention of the thesis of James R. Duggan, of Georgia. A prize of a gold medal, by the demonstrator of surgery, for excellence in bandaging, to Lawrence F. Flick, of Pa., with honorable mention of G. A. Scroggs, of Ohio. A prize of a gold medal, by R. J. Levis, M.D., for the best report of his surgical clinic at the Pennsylvania Hospital, to Chas. M. Gandy, of N. J., with honorable mention of Norman H. Chapman, of Ill., Addinell Hewson, Jr., of Philadelphia, and Bernard R. Lee and Wm. H. Righter, of Pa.

After the delivery of the class valedictory by Geo. T. McCord, the valedictory address was read by Dr. James Aitken Meigs, Professor of the Institutes of Medicine and of Medical Jurisprudence. This address was a novelty of its kind, being entirely in verse of classic metre.

THE PHILADELPHIA DENTAL COLLEGE COMMENCEMENTS.—The Pennsylvania College of Dental Surgery held its Commencement at the Academy of Music, in that city, on Friday evening, February 28th. There were 42 graduates. Prof. J. Ewing Mears, M.D., delivered the valedictory address.

The Philadelphia Dental College held its annual Commencement at the same place on Thursday evening, February 27th. There were 49 graduates. Prof. Sam'l B. Howell, M.D., delivered the valedictory.

The meeting of the Alumni Association of the Philadelphia Dental College was held in the college building, on Friday morning, Feb. 28th, when papers were read by Drs. T. C. Stellwagon, of Phila.; C. E. Francis, of N. Y.; L. Ashley Faught, of Pa.; F. L. Bassett, of N. J.; A. N. Roussel, of Pa.; and Prof. Royce.

IPECACUANHA AS A RELIABLE AND POTENT OXYTOCIC.—Dr. J. H. Carriger, of Knoxville, Tenn., claims that *Ipecacuanha* is a reliable and potent oxytocic, safer than ergot, and that it facilitates the dilatation of the rigid os. Two grains was the usual dose; prompt effects followed.—*New York Med. Jour.*, Nov., 1878.

PROF. ALFRED STILLÉ, of the University of Penn. Medical School, in accordance with a determination expressed by him to serve but fifteen years, when he was elected in 1863 to the chair of the Theory and Practice of Medicine, lately handed in his resignation. At the special request of the Trustees, however, the doctor was persuaded to withdraw the resignation.

PROF. WM. H. BYFORD, who has occupied the chair of Obstetrics and Diseases of Women in the Chicago Medical College since its organization, twenty years ago, has resigned to accept the chair of Gynæcology in Rush College. Prof. Dr. Laskie Miller retains the chair of Obstetrics in Rush College.

WALLACE'S CRANIOCLAST.—Prof. Ellerslie Wallace, of Jefferson Medical College, exhibited to his class upon a recent occasion, a new and valuable craniocast, devised by himself, and made by Mr. Gemrig, of Philadelphia. The blades are of the Hodge shape, but hollow and unfenestrated. The peculiar value of the instrument depends upon an ingenious mechanism, by means of which two long teeth are sprung in the hollow of each blade so soon as the instrument has first been placed in position, clasping the fœtal head, and has then been slightly relaxed so as to allow these teeth room to act. Dr. Wallace recently, in consultation, delivered a child, first crushing its head, when all other instruments had utterly failed. The instrument will not release its hold until either the woman has been completely delivered, or the head of the child has been torn from its body. The price of the instrument is $50.

WOMAN'S HOSPITAL, STATE OF ILLINOIS.—There has been difficulty of late in the management of the Woman's Hospital of the State of Illinois, between the board of lady managers and Dr. Jackson, the surgeon-in-chief. As a result, Dr. J. has resigned with the rest of the medical staff. A new staff has been called to the institution, at the head of which is Prof. Byford. The other members are Drs. Rolen, Merriman, Nelson, Sawyer, and Flood.

A LOCAL ANÆSTHETIC.—℞. Pulv. camph., ʒvi.; æther. sulph., f. ℥i. M. Apply to the gum surrounding the tooth to be removed until the gum turns white, when the tooth can be extracted with scarcely any pain.—*Dental Cosmos.*

PHOSPHIDE OF ZINC IN HYPOCHONDRIA.—On the ground of three observations, Trubert recommends the phosphide of zinc in hypochondria, in the daily dose of 12 milligrammes (gr. 1¼). He has also found this remedy to be more efficacious than any other in the treatment of hysteria.—*Der Irrenfreund.*

# Original Communications.

## ON SOME OF THE SURGICAL USES OF THE ACTUAL CAUTERY.

By ALFRED C. POST, M.D., LL.D.,

VISITING SURGEON TO THE PRESBYTERIAN HOSPITAL, IN THE CITY OF NEW YORK.

(Read before the Medical Society of the State of New York, Feb. 6, 1879.)

THERE is an old adage, "Quod medicamenta non sanant sanat ferrum: quod ferrum non sanat, sanat ignis."

There is no doubt that the actual cautery has often been misapplied, and that its use has been blindly resorted to by persons who have been ignorant of the true pathological conditions of the diseases in which it has been employed, and of the exact therapeutical indications for their treatment. Thus I have heard of a quack who, when called to treat an obstinate ulcer, covered its surface with inflammable materials, which he set on fire, saying that he did not know how to cure the sore, but he did know how to cure a burn.

But I am well satisfied that, in appropriate cases, and with proper precautions, the actual cautery is a remedy of great value, as a means of relieving severe and protracted suffering, of arresting the progress of disease, of preventing extensive disorganization of important parts, and of averting fatal results of morbid action.

At an early period of my professional life, during a temporary residence in Germany, my attention was drawn to the value of this important remedy by a pamphlet published by Ritter von Kern, of Vienna, entitled "Ueber die Anwendung des Glüheisens in der Verhandlung der Gelenkkrankheiten."

Soon after my return to this country I began to employ the remedy in the treatment of chronic diseases of the joints, and to direct the attention of other surgeons to its value as a therapeutical measure in this class of cases. And I have not been disappointed in my expectation of the valuable results to be obtained from this mode of treatment. And having had such ample proof of its beneficial effects in diseases of the articulations, I have been led by analogy to apply the same remedy in other diseases characterized by obstinate, severe, and disorganizing inflammation, or by severe and protracted pain, not yielding to other treatment. I propose, on the present occasion, to lay before the Society some of the results of my experience, and to indicate some of the directions in which further observations may advantageously be made.

The term actual cautery may include any form in which heat may be applied to the surface of the body so as to produce a greater or less degree of irritation of the part to which it is applied, and a greater or less degree of disorganization of the tissues which are immediately involved. The agent may be a bundle of solar rays, concentrated by a lens, a metallic or other body of strong conducting power, heated by fire or by an electric current, a flame directed upon the surface by means of a blow-pipe, or a combustible body ignited in contact with the surface.

The action of the heat may be so gentle as simply to redden the surface, or it may occasion vesication, or it may disorganize the skin throughout a part or the whole of its thickness, or the deeper tissues may be involved in the same disorganizing process. The different forms of the actual cautery, and the different degrees of their action, are applicable to the treatment of a variety of morbid conditions.

I will here enumerate some of the principal therapeutical uses of the actual cautery in its different forms:

I.—It is employed as a hemostatic. This was one of its earliest applications. And before the introduction of the ligature as a means of arresting arterial hemorrhage the cautery was much more extensively used for this purpose than it is at the present time. But there are many cases in which the ligature cannot be applied without deep and extensive incisions in the midst of important parts, where the actual cautery may be used as a substitute with great advantage. And there are other situations, as in the fauces, the vagina, and the rectum, where the ligature cannot be applied, and where the actual cautery is our principal reliance for the arrest of hemorrhage. There are certain precautions which are necessary to be observed in order that we may obtain the best results from the employment of the cautery as a hemostatic.

1st. The hemorrhage should be temporarily arrested, if possible, at the moment when the cautery is applied. If the seat of the hemorrhage be in one of the extremities this object is best accomplished by the application of Esmarch's elastic bandage. In other situations pressure may be made by means of a sponge, squeezed as dry as possible, and withdrawn at the moment when the cautery is to be applied. The application of the cautery in the midst of a puddle of blood is, of course, a very unreliable remedy.

2d. The cautery should be heated only to a dull red heat, and the application to the bleeding surface should not be prolonged. If the cautery be at a white heat it destroys the coats of the vessels more rapidly than it coagulates the blood, and may thus increase the hemorrhage instead of arresting it. The same effect may be produced by a cautery at a red heat if the pressure be too great, or if it be continued too long a time. If the cautery be at a black heat it may be applied more firmly, and it may be kept a longer time in contact with the tissues.

In selecting a cautery to be used as a hemostatic we may be governed, in some measure, by the condition of the part to which it is to be applied. We may use for this purpose the old cauterizing iron, heated by a charcoal fire, by a Bunsen's burner, or by a spirit blow-pipe, or we may have recourse to the galvanic cautery or to the benzine cautery. The simple and inexpensive cauterizing iron may be used with entire satisfaction in most regions of the body. But in the fauces, and in the deeper parts of the vagina or of the rectum there is an advantage in the use of the galvanic or the benzine cautery, as either of these instruments may be used with more deliberation and with more precision.

II.—The actual cautery is employed in the treatment of vascular tumors, with the intention of constringing the vessels, of coagulating the blood, and of exciting plastic exudation, by which the whole of the affected tissue is solidified, and its vascularity diminished. For this purpose the cautery may be used in a variety of forms. In the treatment of superficial telangiectases, involving the arterial capillaries of the skin, the solar rays, concentrated to a focus upon the vascular surface by means of a lens, will accomplish the object speedily, without any breach of the surface, and without the formation of a scar to disfigure the patient. This method was introduced by Mr. Augustus Barnes, and an account of it published in the *Medical and Surgical Reporter* by Dr. Pinckney W. Ellsworth, of Hartford, Conn., and quoted in the MEDICAL REC-

ORD of Dec. 15, 1866. The same class of morbid growths may be treated by the flame of a blow-pipe cautiously directed upon the surface. But the more common mode of applying the actual cautery in the treatment of telangiectasis is by the use of cauterizing needles, which are made to penetrate the interior of the diseased tissue. The needles should be blunt at the point, as, if they penetrate the tissue mechanically, they will give rise to troublesome hemorrhage. They should be heated to a dull red heat, and should be applied at a great number of points, that the influence of their application may be extended to the whole of the morbid growth.

A very convenient instrument for this purpose is the multiple cautery devised by Dr. Thorp, of Chenango Co., in this State. It consists of six metallic wires set in a frame, at a distance of a sixteenth to an eighth of an inch apart, so that, at each application, the skin is penetrated at six distinct points. I have frequently used this instrument, and it has yielded very satisfactory results. The galvanic and benzine cauteries may also be used advantageously in the treatment of telangiectasis.

In the subcutaneous venous telangiectasis, where the arterial capillaries of the skin are not involved, the skin may be dissected from a portion of the surface of the tumor, and a small globular cautery may be made to penetrate the morbid growth. In this way the disease may be cured, and the formation of a disfiguring cicatrix may be avoided.

III.—The actual cautery is employed in the removal of morbid growths which are situated in narrow and deep cavities, where their removal by excision would be attended with the danger of uncontrollable hemorrhage, as in the fauces, and in the deeper parts of the vagina and the rectum. In such cases the galvanic cautery is most advantageously employed, either by encircling the neck of the tumor with a platinum wire, which is then heated by means of a galvanic battery, or by excising with the cautery knife. Care should be taken not to apply too high a degree of heat, or to penetrate the tissues too rapidly, as the danger of hemorrhage would thereby be greatly increased.

IV.—The interior of a morbid growth greatly distending the vagina may be destroyed by repeatedly plunging into it a heated cautery iron, thus reducing its bulk, and making it possible to extract it through the vulva. In this way I succeeded in removing an enormous fibroid mass arising from the posterior lip of the os uteri, and filling the pelvis, so that I could not move it until I had reduced its bulk with the cautery. The operation was performed in the Presbyterian Hospital, in New York, and was reported to the New York Academy of Medicine. In the performance of the operation I had the advice and assistance of Prof. T. G. Thomas.

V.—The actual cautery is a remedy of great value in the treatment of severe and obstinate articular inflammation. I have had large experience in the application of the remedy to this class of cases, and I can confidently recommend it to the profession as a most valuable therapeutical agent. I have usually employed, in these cases, a globular cauterizing-iron, attached by a narrow stem to a wooden handle. I heat the iron to a white heat, and apply it so as to penetrate through the skin into the subjacent connective tissue. I usually apply it at two to four points, the patient being in a state of anæsthesia at the time of the operation. I direct ice-water dressings for a few hours, and subsequently the ointment of balsam of Peru, or of salicylic acid.

As illustrations of the beneficial effects of the application of the actual cautery in articular diseases, I will select two cases out of a considerable number in which the remedy seemed to me to be the efficient means of preserving life.

The first case was that of a young man who was admitted into the Presbyterian Hospital, under my care, for retention of urine, resulting from a very close stricture in the bulbo-membranous portion of the urethra. He was a young man of intemperate habits, and a very unfavorable subject for surgical treatment. I could not succeed in introducing any instrument through the stricture, and as the bladder was greatly distended, I plunged into it above the pubes, a hollow needle connected with an aspirator, and drew off a very large quantity of urine. I repeated the aspiration morning and evening for three days, and finding the stricture impassable, I then proceeded to perform external urethrotomy without a guide. Having divided the stricture, I was able to pass a steel sound thirty millimetres in circumference through the whole length of the urethra into the bladder. There was no further trouble in the evacuation of the urine, but three or four days after the operation, the patient had an attack of acute synovitis of the right knee. He suffered severe pain and tenderness in the affected joint, and there was a great amount of constitutional disturbance. The limb was supported in a slightly flexed position, on a double inclined plane, and the usual remedies were employed to combat the inflammation. But for a number of days the case went on from bad to worse, and I had serious apprehensions for the life of the patient. I then had the patient etherized, and applied the actual cautery at four points, two on each side of the joint. The application was a very thorough one, extending deeply into the subcutaneous tissues. On recovering from the anæsthesia, the patient expressed himself as being greatly relieved since the application of the cautery. Two hours after the application his temperature was 2° lower than before the cauterization, and the average temperature for a fortnight after the application was 2° lower than for a corresponding period before. A steady improvement in the condition of the patient occurred until the time of his discharge from the hospital.

The second case was one of a boy about ten years of age, whom I saw in Jersey City in consultation with Dr. Quimby. When I was summoned to the consultation I was not aware of the nature of the case. I found the boy suffering greatly from morbus coxarius in its third stage. The leg was flexed upon the thigh, and the thigh upon the trunk, so that the knee was almost in contact with the chin, and every attempt to extend the limb occasioned great agony to the patient. There was great febrile excitement, with high temperature, rapid and feeble pulse, and very marked emaciation. The patient could not be placed in any position in which he was free from pain, and his rest was greatly disturbed by his constant sufferings arising in part from the distorted position of the limb. The patient was etherized and the limb was then brought down into an extended position, parallel with its fellow, and maintained in that position by extension with a weight and pulley. There was a fire burning in the grate, and the poker was readily heated to a bright red heat, and applied behind the trochanter major, burning through the thickness of the skin to the extent of two-fifths of an inch in breadth and about three inches in length. The extension of the limb and the cauterization were followed by an immediate improvement in the con-

dition of the patient. The pain was relieved, the fever subsided, and the appetite and strength returned. When I saw him a few months afterwards, his limb was straight and free from deformity, but the hip was in a state of fibrous anchylosis. He was able to walk with a firm step; he had a ruddy complexion, had gained many pounds in weight, and presented the appearance of perfect health. It appeared to me that the treatment which was employed had been the means of saving him from the rapidly approaching fatal termination of his disease.

VI.—I have found the actual cautery, in some cases, an efficient means of restoring motion to paralyzed limbs. The cases in which I have been successful have been for the most part those of peripheric origin, where there was no morbid condition of the nervous centres. The cases have been chiefly those where a limb has been paralyzed by pressure upon its principal nerve, or by some other form of mechanical injury. The form of cautery which I have used for this purpose has been chiefly the moxa, or the burning of a combustible body upon the surface of the limb. I generally place three or four pieces of camphor along the course of the nerve, surrounding each piece with a coil of wet rag, and set fire to them, allowing them to burn until they are consumed, or extinguishing them with the wet rag if they seem to be burning too long. Each piece of camphor is of a conical or hemispherical shape, from three-eighths to half an inch in diameter. The action of the moxa applied in this way seems to be more exciting than that of the cauterizing iron, and it does not occasion as profound disintegration of the tissues.

VII.—I have employed the actual cautery with great satisfaction in the treatment of a number of cases of severe, protracted, and obstinate neuralgia. I can recall several instances of severe neuralgia of the anterior crural nerve which were promptly and permanently relieved by the application of the cautery at two or three points over the seat of the pain.

A few months ago I removed a deep-seated tumor from the neck of a woman about 50 years of age. The tumor was situated beneath the sterno-cleido-mastoid muscle, which was partially divided during the operation. The wound was dressed antiseptically, but not with all the details of Lister's method. It united substantially by the first intention. Soon after she began to complain of severe neuralgic pain on that side of the neck. Failing to relieve the pain by milder methods, I made a free application of Thorp's multiple cautery at a number of points over the seat of pain, with entire relief. After the lapse of a number of weeks the pain returned, and was again relieved by another application of the cautery.

I have applied the actual cautery for the relief of neuralgic pains in various parts of the body, and have seldom failed to obtain marked alleviation, if not absolute removal of the pain.

VIII.—I have employed the actual cautery for the relief of cystitis, with a degree of success which seems to me to warrant further trials of the remedy in obstinate cases of that very distressing disease. Several years ago I was attending an old gentleman, who was suffering severely from prostatic cystitis, and the neck of whose bladder was very intolerant of the introduction of instruments, so that it was found impracticable to carry out a thorough system of catheterization and irrigation of the bladder. I proposed to him the application of the actual cautery as a probable means of relief. He inquired whether I had ever used the remedy in a similar case. I replied, that I had not; but having derived great benefit from its use in severe and obstinate cases of inflammation affecting other deep-seated organs, I reasoned from analogy that it would be likely to exert a favorable influence in cystitis. He refused to allow a trial of the remedy. I afterwards had an opportunity of testing the value of the cautery in the following cases:

CASE I.—Patrick Reddy, ætat. 63; born in Ireland; admitted to Presbyterian Hospital on the 6th June, 1877, under the care of Dr. Briddon.

*Previous History.*—Twenty years ago the patient first noticed that the left side of the scrotum was swollen, and he complained of pain over the region of the left kidney. The scrotal swelling was about half the size of a man's head. He wore a bandage with relief. For the last three months there has been a prominence above the pubes, attributed to a distended bladder. At this time, on walking, he would be obliged to pass his urine once or twice per hour; if he failed to do so, it would dribble away. This condition grew worse, until two weeks ago, when he could no longer pass a stream of urine by voluntary effort; but, unless the bladder were emptied with a catheter, there would be a constant dribbling. On rectal examination, the prostate was found to be moderately enlarged. A large prominence could be seen and felt above the pubes, caused by the distended bladder, supposed to contain two or three quarts of urine, as twenty ounces were drawn off without perceptible diminution of the swelling. The patient was sounded for stone, with a negative result. A large swelling was found on the left of the scrotum, about the size of a cocoanut; it was thought to be a hydrocele, but on applying the dioptric test, it was not found to be translucent.

Directions were given to introduce a catheter three times a day, and draw off a portion of the contents of the bladder, not emptying it entirely for several days, to avoid the shock which would be likely to occur if the over-distended bladder were too suddenly evacuated.

June 7th.— ℥ l. drawn off; abdomen still prominent; 8th. ℥ lxx. drawn off; 9th. ℥ xc. drawn off; 10th. ℥ lxxxiij. drawn off; 11th. ℥ lxxiv. drawn off. Urine is of a much darker color; on examination, it is found to contain pus and blood-corpuscles in large quantity.

13th.—The average daily quantity of urine drawn off by the catheter has been about ℥ lxxv., in addition to which an estimated quantity of ℥ viij. to x. has dribbled away. His temperature has risen to a point varying from 100° to 104° in the evening. At each catheterism he has complained more or less of a feeling of prostration.

25th.—Since the last date the patient has complained of severe pain when the catheter has been introduced. He has had numerous chills with febrile paroxysms. The urine is drawn off with difficulty, in consequence of the presence of several false passages communicating with the urethra. During the past few weeks there has been marked progressive emaciation. To-day the house-surgeon, Dr. Buechler, tapped the hydrocele, and drew off about ℥ xij. of an albuminous fluid.

30th.—Since the last report, patient has had daily injections of gr. ½ acetate of lead dissolved in two ounces of water. To-day it was stopped, and two ounces of a solution of a drachm of salicylic acid in a pint of water were directed to be injected three times a day to prevent the decomposition of the urine, which had become quite fetid.

July 7th.—In addition to the five grains of sulph.

quinia, which the patient is taking morning and evening, he was directed to take ʒ i. of infus. diosm. crenat. four times a day.

16th.—The urine is for the most part quite clear, but sometimes it becomes fetid.

19th.—Patient has recently had several attacks of diarrhœa and vomiting, for which a mixture containing sulph. morphiæ, tinct. capsic., and chloroform has been ordered. The dose of infus. diosm. crenat. has been increased to ʒ ij. three times a day, and a twentieth of a grain of sulphate of strychnia was also ordered to be taken morning, noon, and night. He was also ordered to be faradized daily, one pole being brought into communication with the lumbar region, and the other with the perineum.

20th.—The vomiting and diarrhœa have ceased.

Aug. 1st.—The patient came under my care to-day. The urine is drawn off with a catheter, and the bladder washed out at regular intervals as before. Appetite and general condition somewhat improved.

Aug. 15th.—The urinary symptoms remain stationary. Changed the injection to nitric acid, in the proportion of one drop to an ounce of water.

30th.—Etherized the patient and applied the actual cautery at two points above the pubes, to a sufficient depth to destroy the skin.

Sept. 1st.—There is a marked improvement in the condition of the patient. The pain in the region of the bladder is greatly relieved. The urine, instead of constantly dribbling, is retained ten minutes or more at a time, and then comes in a small stream and without pain. In every respect the patient expresses himself as feeling much better than at any previous time since he entered the hospital. He bears the introduction of instruments much better than before the cauterization.

6th.—For two or three days there has been a hard swelling in the perineum, to the left of the rhaphe. It is slightly painful and tender. Poultices have been applied to it. It is now reduced in size, quite hard, free from pain, and very slightly tender on pressure.

12th.—The patient does not retain his urine quite as well as immediately after the cauterization. But he continues to improve in health and spirits. His bladder is still washed out with water acidulated with nitric acid.

22d.—Ordered Ung. Sabin. to keep issues open.

29th.—Patient sits up the greater part of the day. He walks about the ward, and feels in every way stronger and better. He can sometimes retain his urine for an hour or two after the irrigation of the bladder. The lump in the perineum has increased in size, and has again become painful. Ordered poultices to be reapplied.

Oct. 1st.—Fluctuation was detected. A puncture was made, but no pus escaped.

2d.—A little pus escapes from the opening, mingled with urine.

10th.—Most of the urine escapes through the opening in the perineum. The patient is in good spirits, eats with a good appetite, and has a healthy complexion.

30th.—Patient continues to gain strength. He can retain his urine for three or four hours, and he ejects it in a good stream, and with considerable force.

Nov. 5th.—The acid injections now cause some irritation, and are directed to be discontinued, and the bladder to be irrigated with simple tepid water. The dose of the sulphate of strychnia is reduced to one-thirty-second of a grain, three times a day.

27th.—The patient was discharged from the hospital in a good state of health, cured of his incontinence of urine, and evacuating his bladder by voluntary effort, and without pain. He did not hesitate, at any time after the cauterization, to ascribe his improvement to the application of the cautery.

Case II.—Simon Stanley, ætat. 62. Born in Ireland. Admitted into Presbyterian Hospital, May 13, 1878, under care of Dr. Briddon.

*Previous History.*—About forty years ago patient had gonorrhœa, which lasted about six months. He denies having had any other venereal disease. Five years ago, while lifting a heavy weight, he had a hernial protrusion, which has not occasioned any serious trouble. Otherwise he has enjoyed good health until about two years ago, when, without any assignable cause, he began to suffer from a desire to urinate every fifteen or twenty minutes. When he retained his urine a longer time, he suffered pain. He continued in this way about a year, when he became worse, urinating once in five to ten minutes, and suffering pain in the glans penis. This pain was relieved immediately after he evacuated his bladder. He urinated more frequently during the day than during the night.

*Present Condition.*—Patient complains of pain in the lumbar region, with frequent desire to urinate, and pain in the glans penis before evacuating the bladder.

*Examination of Urine.*—Sp. gr., 1010. Reaction slightly acid. Slight pulverulent sediment.

On microscopical examination, found pus corpuscles, epithelial cells of the bladder, mucus, and no casts. On chemical examination, slight traces of albumen were found. The following prescriptions were ordered:

℞. Liquor potassæ,
Tinct. hyosyami, ãã..... ʒ ss.
Aquæ ad..... ʒ iij.
M.

Sig. A teaspoonful in half a tumbler of water three times a day, after meals.

℞. Tritici repent..... ʒ ij.
Aq. bullient..... Oij.
M.

Sig. The whole quantity to be taken in twenty-four hours.

14th.—Urine can be retained longer; patient suffers less pain, and feels stronger. An attempt was made to sound him for stone, but the bladder was so irritable that the sounding was unsatisfactory.

20th.—Patient was etherized, water was injected into the bladder, and patient was sounded with Thompson's searcher, but no stone was detected. The prostate was found to be enlarged.

21st.—All medicines were discontinued. Ordered a solution of eight grains of acetate of lead in a pint of water. One ounce mixed with an ounce of hot water, to be injected into the bladder and allowed to escape. This injection to be made three times in succession, to be followed by immediate escape of the fluid, and then a fourth injection to be retained.

24th.—There is some improvement in the symptoms.

29th.—As the vesical irritation continues to be very troublesome, Dr. Briddon had the patient etherized, and applied the actual cautery above the pubes, making an eschar about an inch in diameter.

30th.—Patient feels better; he retains his urine longer, and suffers no pain on micturition.

June 12th.—Continued improvement.

17th.—Patient is suffering from toothache. Ordered three drops of Fleming's tincture of aconite to be painted on the gums every two hours. It afforded immediate relief.

July 11th.—The vesical symptoms are steadily improving. Yesterday, while patient was attempting to get out of bed, he bruised one of his testes. Today it is swollen and painful. Cloths wrung out of ice-water were ordered to be applied.

12th.—The ice-water afforded no relief, and was accordingly discontinued; warm poultices were substituted. The washing out of the bladder was temporarily discontinued.

16th.—Ordered the following prescription:

℞. Ext. belladonna..... ʒ j.
Ung. simpl..... ..... ℥ j.
M.
Sig. Anoint the scrotum over the inflamed testicle.

18th.—The orchitis has entirely subsided. The washing out of the bladder is ordered to be resumed.

Aug. 20th.—Continued improvement.

Sept. 7th.—Patient was discharged at his own request. His general health is much improved. He can retain his urine from one to two hours while he is going about, but when he is recumbent he is obliged to evacuate his bladder more frequently.

Dr. Briddon and myself were both satisfied that this patient was greatly benefited by the application of the actual cautery.

In the two cases of cystitis which I have reported, the improvement following the application of the actual cautery was so prompt, so decided, and so persistent, as to constitute a strong argument in favor of a further resort to the remedy in severe and obstinate cases. A careful consideration of the facts in connection with these two cases will show clearly that I do not propose the actual cautery as a substitute for other well-known remedies, but as an auxiliary to be used in conjunction with them. In our attacks on disease, we may well imitate the tactics of a skilful general, who, while he leads the main body of his army to attack the enemy in front, at the same time sends a chosen division to the flank or rear of the hostile position, that the rout may be more certain and more complete.

IX. The last use of the actual cautery which I will propose, is in the treatment of varicose veins.

In the great majority of cases of varicose veins of the lower extremities, the palliative treatment, by methodical pressure, is to be preferred to any attempt to obliterate the diseased veins. And the introduction of elastic bandages for this purpose, as advocated by Dr. Martin, of Boston, in an essay read before the American Medical Association, has furnished the profession with a far more reliable means of carrying out this indication than it had previously enjoyed. But, nevertheless, there are cases of extreme severity in which the disease cannot be controlled by palliative measures, and the obliteration of the diseased veins affords the only chance of placing the patient in a position to engage in the active pursuits of life. In such cases I would suggest the actual cautery as a means of accomplishing this desirable end. It is only recently that my attention has been drawn to this method, and I have only resorted to it in one instance. The patient was a man who had passed middle age, and who had suffered much inconvenience from a varicose condition of the saphena vein and its branches, on one of his legs, greatly interfering with his ability to work for his living. I applied cauterizing needles at a large number of points along the course of the enlarged veins. The local inflammation following the application was very slight, and there was scarcely any constitutional disturbance. A radical cure was promptly effected. An account of this case was published in the MEDICAL RECORD of Jan. 18, 1879.

If similar results should follow the application of the remedy in a considerable number of cases, it will constitute a valuable addition to our therapeutical resources.

## ON THE TRAUMATIC ORIGIN OF SUB-FASCIAL, DEEP-SEATED, OR COLD ABSCESS.

COMMONLY CALLED CONSTITUTIONAL OR SCROFULOUS ABSCESS.

BY LEWIS A. SAYRE, M.D.

(Read before the Medical Society of the State of New York, Feb. 6, 1879.)

UNDER the head of "Scrofulous Abscess," Prof. Samuel Gross (*A System of Surgery*, Vol. I., p. 141, 1866) remarks, that "The scrofulous abscess is of such frequent occurrence, and possesses, withal, such distinctive features, as to entitle it to a separate consideration." "It is never met with except in strumous constitutions."

Psoas abscess he regards (Vol. II., p. 184) as an "essentially strumous disease, which can occur only in persons of a strumous disposition."

Dr. J. M. Chelius (*System of Surgery*, Translated by J. F. South, Philadelphia, 1847, Vol. I., p. 57) states that cold abscesses "are always the consequence of a general cacochemic or dyscrasic affection."

Geo. H. B. Macleod, M.D., F.R.C.S.E. (*Outlines of Surgical Diagnosis*, First Am. Ed., New York, 1864, p. 63), remarks, that "cold or chronic abscess occurs generally in young persons of a lymphatic or scrofulous temperament."

Dr. Frank H. Hamilton, A.M., says (*The Principles and Practice of Surgery*, New York, 1873, p. 40) that, "chronic or cold abscesses occur almost exclusively in persons of feeble constitutions, and especially in persons of strumous habit."

From the careful observation of several cases of deep-seated abscess that have come under my personal care, occurring in persons of previous good health and from healthy parents, and in which cases the disease could be distinctly traced to a traumatic origin, I am inclined to doubt the statements of the above quoted authorities and the generally prevalent opinion that these abscesses must necessarily be connected with a constitutional cachexia and arise from a constitutional condition without some local exciting cause. In fact I am inclined to doubt even the possibility of their existence without being excited by some local injury, even when occurring in persons with a depraved constitution. I am very much more inclined to agree with the statement found in *A System of Surgery*, extracted from the works of Benjamin Bell, of Edinburgh, by Nicholas B. Waters, M.D., Philadelphia, in 1792, where we find (page 432, under the head of Lumbar Abscess) the following: "This disease seems, in general, to be induced by a bruise, twist, or some other injury of the small of the back." It is my opinion that the etiology of all other deep-seated abscesses, excepting specific and glandular enlargements, will be found to be the same as Benjamin Bell has here given for lumbar abscesses.

Many of these abscesses may arise from a blow or bruise, but most of them arise from a wrench or strain of the muscles, in many instances tearing off more or less of their fibrous insertion at their periosteal attachments. In many instances these attachments are so deep-seated as to give no local manifestations that can be detected, or when superficial they are not of sufficient extent to attract immediate attention to the slight exudation, or effusion which takes place; this exudation or effusion is the result of a strain or rupture of some tissue, but owing to the fact that it is situated in a locality which is normally poorly supplied with absorbent vessels, is not taken up, and being unsuspected, the effusion is continued, and being increased by constant irritation and motion, finally undergoes a degenerative metamorphosis into pus.

The pus may be at first very small in amount, and being deep-seated, unsuspected, and not detected, increases in quantity and burrows in different directions in the tissues, taking that course where the least resistance is met with, and may thus continue burrowing for many months, or even years, until the pus has found its way, by a more or less tortuous course, to the surface of the body, where it can be detected as a fluctuating tumor. During all these months the retained pus has been a noxious element in the system, and has produced the constitutional disturbance which we find in connection with this disease, as the result of this absorption to a greater or less extent, thus poisoning the system, or, by its mere mechanical presence, producing pressure upon the adjacent parts, thereby interfering with their nutrition and vitality, and causing pain by pressure upon the nerves, thus keeping up a continuous irritation, until finally the general system becomes involved, and we thus have the constitutional disturbance produced by the presence of the abscess instead of the abscess being the result of a previously vitiated constitution, as is generally supposed.

Thus it will be seen that we have had for a long time in the system the very conditions which are sufficient to deprave the general health even of the most robust, and, owing to the fact that this depraved condition of the general health is usually observed before the pus has reached the surface, or the abscess has been detected, the profession has been wont to attribute the abscess to the depraved condition instead of what is the true explanation, namely: that the depraved condition is due to the presence of the abscess.

The following are a few of the cases that have come under my personal observation and have led me to make the above remarks.

Case I.—B. H., Tenth Street, New York; age twelve years, brought to me in June, 1876, by Professor T. M. Markoe, M.D., with the following history:

Patient's father died at about fifty years of age, from disease of the heart. Mother is a robust, healthy woman, and she has six other children, all of whom are healthy. This boy had always been a healthy child until the summer of 1875, when he spent some time in the White Mountains, in Vermont. At the hotel where he was staying there were several cases of sickness which were attributed to bad drainage and the contamination of the water thereby. After his return to the city in the fall he seemed to have a general malaise, weakness and loss of appetite without any distinct symptoms, but he was thought to be suffering from malaria. Quinine and tonics were used without benefit. In the month of February, in getting out of a bath-tub his brother suddenly discovered that one of his buttocks was larger than the other; this being made known, Dr. Markoe, who had the case in charge, was again sent for and his attention drawn to the swelling. He discovered an abscess under the gluteal muscles of the left side and extending above the crest of the ilium. He opened this abscess just above the posterior crest of the ilium in the lumbar space, and gave exit to a very large amount of pus, the exact number of ounces not being determined. A spica bandage was applied and worn. The abscess discharged for some months and finally closed, but every few weeks it would break out again and discharge. This was the condition when the patient was brought to me in June. The above condition was looked upon by Dr. M. as the local manifestation of a malarial and constitutional disorder.

Upon stripping the patient and making an examination I found the left gluteal region much broader and flatter than the other, with a swelling upon the posterior portion of the thigh three inches below the tuberosity of the ischium. Upon pressing this tumor pus escaped through the opening which had previously been made above the posterior crest of the ilium. A long flexible probe was then passed into this opening downward and backward over the ilium towards the sacrum, then bent forward and downward and made to be distinctly felt upon the posterior aspect of the thigh, some three or three and a half inches below the tuberosity of the ischium, but no dead bone could be detected. A counter-opening was now made at this point which gave exit to some two or three ounces of pus. The probe being passed in at this lower opening went directly upward and inward and immediately came in contact with dead bone at the tuberosity of the ischium. So soon as the location of the dead bone was determined the young lad exclaimed: "Why! that is the very place where I got hurt when the horse bucked with me in the mountains last summer." Upon a more careful inquiry it was discovered that from the day of this injury, which he received while riding, he complained for some time of severe pain at that place, having difficulty in sitting down, and was obliged to suspend his horseback exercises. From this time he acquired the habit of sitting upon his opposite buttock, which gave rise to a twist in the body which the family had been disposed to attribute to his general debility.

From the above history it would seem that the boy's trouble was clearly due to a traumatism, and this view is further strengthened by the fact that he was perfectly healthy previous to the injury which he had received. Probably the reason that this injury had been overlooked and forgotten is, that he only complained of the local tenderness for a few days. This tenderness afterwards subsiding, and being lost sight of by the prominence of his general debilitated condition, which was due to the irritation of the pus which had been formed at this point, and being so deep-seated, was not detected, nor even suspected, until months after, when the pus had made its way externally under the gluteal muscles upward and presented itself as a fluctuating tumor above the crest of the ilium.

The diagnosis now being clear that we had a case of necrosis of the tuberosity of the ischium, a free incision was made down to the dead bone and the necrosed portion removed. Carbolized water was freely injected, escaping through both openings; an india-rubber drainage tube was drawn through the upper opening to the lower opening, traversing the incision over the tuberosity. The wound was dressed with Peruvian balsam and oakum, and the walls of

the abscess firmly supported by a roller bandage. From this time the boy's improvement was rapid, and terminated in a perfect recovery, and he has since remained so, showing no sign of constitutional taint whatever; but on the contrary is an exceedingly vigorous and robust boy.

CASE II.—A very similar case will be found in the London *Lancet* for July, 1871, occurring in the service of Mr. Callender, of St. Bartholomew's Hospital. The patient was a man who had been treated in the hospitals of London for six years for scrofulous disease of the hip-joint. Various abscesses upon the back and thigh had been discharging during all these years and had gradually exhausted the patient. I was called in consultation as to the propriety of exsecting the hip-joint; but upon examination I found that the hip-joint was perfectly sound, and that the disease was necrosis of the tuberosity of the ischium. Mr. Callender made an incision down to the tuberosity of the ischium and removed a piece of necrosed bone, and the man made a rapid recovery. It was then discovered that the man had some years previous been a stage-driver, and had received an injury at this point from the jolting of the stage while riding over rough roads, and this had resulted in a necrosed condition of the ischium.

CASE III.—In September, 1878, I was called by telegraph to Wilmington, Delaware, to see a gentleman, with Dr. W. R. Bullock and Dr. Jas. A. Draper, who was supposed to have hip disease. The patient had been an active, robust lawyer, between forty and forty-five years of age, who had been taken ill some six months previous with what was then supposed to be rheumatism of his left hip. After some weeks of fruitless treatment he was sent to the hot springs of Virginia; but as he grew gradually worse and more feeble Dr. Cabel, of Virginia, advised him to return to his home in Wilmington. At this time it was suspected that caries of the hip-joint had become developed, and Dr. Agnew, of Philadelphia, was called to see him, who decided that the hip-joint was not organically involved; but the patient was now so far exhausted that he thought no treatment would be of avail, and hence suggested nothing. I was then telegraphed to to see him, and reached the patient twenty-four hours afterwards. I found him delirious, greatly prostrated, and in a profuse perspiration; in fact, presenting all the symptoms of pyæmia. Upon a careful examination I was enabled to corroborate Dr. Agnew's opinion in regard to the hip-joint not being involved. I, however, detected a large abscess deep under the gluteal muscles. By firm pressure over the gluteal region a fluctuating tumor appeared upon the posterior and outer portion of the left thigh. Dr. Bullock had already suspected an abscess in this region, and had aspirated it just before my arrival, but obtained nothing. I therefore made a free incision over the fluctuating tumor over the outer portion of the thigh and gave exit to a very large amount of pus. The ordinary probes were not of sufficient length to reach the bottom of the abscess; a silver catheter was therefore passed, and with it I detected a ridge of denuded bone about the middle of the ilium along the line where the gluteus medius muscle is attached. The catheter was then turned with its projecting point towards the surface and a counter opening made through the gluteal muscles, when this curved line could be distinctly felt uncovered of its periosteum. A drainage tube was then drawn from one opening to the other. The patient never became entirely conscious, and died at the end of a week of pyæmia. After the abscess had been discovered, and the location of its origin definitely fixed, which was the origin of the gluteus medius muscle, some gentlemen friends of his, being present, stated the following circumstances:

In March last he had acted as one of six pall-bearers in carrying a very large man, weighing nearly three hundred pounds, to the church, and back to the hearse, and then to the grave. One gentleman remembered distinctly of his complaining that he had hurt himself at that point when he attempted to lift the coffin, but it had entirely passed from their minds until this time. Another friend who was present said that the night after the funeral the patient spent the evening with him at his house, and in getting up to go home he placed his hand upon this portion of his hip and said that he had either strained it or had got rheumatism. From this time the trouble continued until he was sent to the hot springs of Virginia as above stated.

CASE IV.—W. K., Forty-ninth Street, near Fifth Avenue, New York. Forty-three years of age; a vigorous, robust, and well-developed man, who in going down his front stoop, which was glazed with ice, slipped, and in attempting to save himself from falling, made a great muscular effort, and was seized with a pain in the upper and anterior portion of his thigh about four inches below Poupart's ligament. He was brought in a carriage to my house immediately after the accident. There were no external appearances that would attract attention to any portion of his thigh unless it might be a very slight depression at the point I have mentioned. At this point the pain was so intense that I could account for it in no other way than that he had ruptured some of the fibres of the crureus, or torn them from their periosteal attachment. I advised complete rest in bed, with the leg elevated and thigh lifted, and the application of a firm roller bandage, carrying it over the thigh; this treatment to be kept up for a week or ten days until the parts had time to regain their integrity. The patient seemed to think I was making a more serious case than the appearances would justify, and sought other advice. He was told that it was a matter of trifling importance and that he might go about his work. . . . In the course of about five weeks he detected a discoloration of the thigh at some distance from the point of injury, both upon the inside and outside. About three months afterwards I was again called to see him and found a large abscess in his thigh, which I aspirated and afterwards opened antiseptically after Lister's plan, and he then made a prompt recovery.

CASE V.—A. M. S.; age two and a half years. Brought to me in January, 1853, with symptoms of lumbar abscess. The patient at this time was in a tolerably good condition. Upon examination I thought I detected deep-seated pus; a consultation was held by Drs. Willard Parker and Valentine Mott, who were unable to detect fluctuation and advised the local application of iodine and the internal administration of cod-liver oil. In the following March or April the patient returned to the city, and Drs. Parker and Valentine Mott saw him in consultation with me, and both agreed at this time that my first diagnosis was correct, and that there was deep-seated pus. The abscess had now become quite marked and easy to recognize; they advised a valvular incision upon the left side. It was my wish to have a free incision, but being overruled, the abscess was evacuated by a valvular incision, the air being cautiously excluded and the wound hermetically sealed and a bandage placed over it. The patient went to the country in

June, and in July following there were two valvular incisions made upon the right side; both times with my protest, as I was anxious for a free incision. On account of the reduced condition of the patient he was again sent to the country, near the sea-shore, in order that he might get the benefit of salt water bathing and sea-air. In September I was called to the sea-side to see him as he was thought to be dying. He had become greatly emaciated, had hectic fever, entire loss of appetite, and was drenched with a copious perspiration. The tumor was now quite prominent, particularly upon the right side. The father now gave his full consent for me to proceed with the case as I desired, as he would prefer to have him die to have him suffer as he was then doing, and wished me to perform the operation which I had at first proposed. I immediately made a careful incision around the posterior crest of the ilium, giving exit to a large amount of pus, and upon exploration I at once came in contact with necrosed bone extending from the superior to the posterior spinous processes of the crest of the ilium and leading down to the junction of the sacrum and the ilium, this portion being denuded of its articular cartilage, and was carious. A considerable portion of the necrosed bone was scraped away and the wound filled with Peruvian balsam and oakum, and the child put to bed.

After the incision had been made and the bone was found diseased, the mother then said that that was exactly the place where her child had hurt himself by falling off from a trunk backwards against the baseboard, while they were at Saratoga, in the August previous to the time of my seeing him. She had forgotten all about this until it was brought to her mind by determining the location of the diseased bone.

From the hour of the operation he improved in all his symptoms; the hectic fever subsided, his sweats ceased, and his appetite returned. The wound went on discharging for some five or six months, at the end of which time it closed. The patient subsequently made a complete and perfect recovery, and grew to be a vigorous and robust man, able to perform the active duties of a civil engineer upon our Western frontier.

This patient was seen fifteen years afterward by Dr. LeRoy M. Yale, who met him and entered the following note in my history book: "The patient is in no way inconvenienced by the old disease; no sign of it remains, save a cicatrix some four inches in length, which has considerably contracted in size since the incision was made."

Case VI.—L. H. S., Fifth Avenue, New York, age 20. He had previously enjoyed perfect health. He began one afternoon to complain, without apparent cause, of feeling sick and unable to continue his daily avocation. He complained of a circumscribed pain upon the right side between the ninth and tenth ribs, at the point of their greatest curvature. In the evening of the same day he was seized with excessive nausea, and vomited freely the food which he had taken during the day, which was almost wholly undigested. The next morning he complained of this localized pain, which led me to suspect that he had received some injury at this point. I questioned him very closely, but he positively asserted that he had in no wise been injured. The case progressed, but as he was no better, and fearing some grave visceral disturbance, I called Dr. Austin Flint in consultation, who, upon a careful examination, could detect no serious difficulty, and gave a favorable prognosis under expectant treatment. The patient for a time remained able to sit up and to go out riding, but after some weeks he began to have chills one or more times per day, and his general prostration became much more marked. Dr. A. L. Loomis, then saw him in consultation with Dr. L. M. Yale, a number of times, both looking upon the case as one of malarial origin, and that the liver was involved. Mercury and quinine were advised and taken in liberal doses for some weeks without any improvement. Blisters were then applied over the liver, and repeated at intervals of a week for some time; tincture of iodine was also locally used. His general health became completely broken down, and upon a more careful examination Dr. Loomis now decided that there was chronic enlargement of the liver from malarial poisoning, which could probably be relieved by a two years' residence in a high altitude. The pain and difficulty of breathing at this time had become so great that the patient had become unable to take exercise even in the easiest riding carriage, and he was taken to the Hot Springs of Virginia, for the purpose of having the "Hot Spout" which is celebrated for its action upon the liver after mercurials have failed to produce the desired effect. I might here state that the idea that the liver was the source of the trouble was maintained, notwithstanding there was no jaundice whatever of the skin or conjunctiva, and the stools were natural in color. I accompanied the patient on his Southern trip. We reached Richmond by steamer, the patient bearing the trip with a considerable degree of comfort; but his trip from Millboro to the Springs, though only sixteen miles distant from the railroad station, took three days, during which time the patient suffered immensely from the jolting of the vehicle in which he was riding. On arriving at the Springs I found Drs. Cabel, of Virginia, and Stewart, of Georgia, and a number of other well-known Southern physicians, who at my invitation examined the patient and manifested a great deal of interest in the case. All these gentlemen were of the same opinion as Dr. Loomis; I could not agree with them, and still felt quite confident that there was deep-seated pus and that it was not connected with the liver. The first day that the patient was subjected to the "Hot Spout," the temperature of the water being, I think, 98° or 100°, he was much more comfortable, and this bath was followed by an exceedingly dark colored evacuation from the bowels. This gave great encouragement, and I was inclined to adopt the views of my medical friends. But in the course of two or three days his breathing became much more rapid, and the distention over the liver and lumbar region becoming more distinct, I felt confident that I detected fluctuation, and decided to explore it even if it were connected with the liver, inasmuch as five months had elapsed since the commencement of the trouble, which would have been quite time for peritoneal adhesions to have taken place. In the presence of Drs. Stewart, Cabel, and a number of other medical gentlemen whose names I cannot now remember, I made a puncture with a tenotome nearly two inches in depth; no pus escaped, but as the instrument could be easily moved from side to side, I was confident it was in a cavity, and by partially withdrawing the instrument, which was narrower in the blade than at the heel, pus escaped beside it, and I therefore, without removing the knife, made a four-inch incision diagonally across the quadratus lumborum muscle, which gave exit to an exceedingly large amount of pus, I think something over a quart. This gave the patient instant relief from all his worst symptoms. Some days after, while dressing the wound, I discovered a prominent tumor in the right hypochondrium, upon the pressing of which pus was found to escape in the opening in the lumbar region.

Some days after this the tumor increased in size and required firm pressure to evacuate its contents; a consultation was had with the medical gentlemen there present, and it was decided to make an incision down upon this tumor rather than to run the risk of the further burrowing of the pus. A careful dissection was made through the superficial and deep fascia, external oblique and the transversalis muscles, and I immediately came in contact with pus and some four or five ounces evacuated. A probe being passed in, and being found too short, a catheter was substituted and made to travel under the upper border of the tenth rib. A wire was then placed within the catheter and it was found pressing firmly against the transverse process of the tenth dorsal vertebra. A careful incision was made down to the end of this catheter, the wire withdrawn, and a rag, wet with carbolized oil, passed through the eye of the catheter and drawn through the wound, thus giving it free drainage. This procedure gave the patient great relief, and from that time his improvement was rapid and within a few weeks he was brought home. When the rag which had been introduced to give free drainage to the part had remained in about two months, it was then divided in the middle and made into two. This was in September. In the January following. as the sinuses still remained open and it was impossible to close them, Dr. A. B. Crosby put the patient under chloroform and connected the openings by a free incision under the border of the tenth rib, its whole length. After this had been done I found upon examination a half inch band of transverse fascia, behind which was pus. This I cautiously divided. It was then discovered that the last digitation of the serratus magnus muscle at the eighth or ninth rib had been torn from its attachment. When the patient recovered from the influence of the chloroform and his condition was explained to him, he immediately asked if lifting could have done this, and stated that the day before he had been taken sick he had strained himself by trying to raise the hind wheels of a carriage which were frozen in the mud, by placing his shoulders underneath the axle. From the time the fascial band above referred to was divided, and free exit was given to the pus, he began to improve, and completely recovered in about six months, and has remained in perfect health.

## ALBUMINURIA IN PERSONS APPARENTLY HEALTHY; WITH THE PROPER METHOD FOR DETECTING IT.

By JOHN MUNN, M.D.,

ASSISTANT MEDICAL DIRECTOR UNITED STATES LIFE INSURANCE COMPANY, NEW YORK.

For several years past it has been the custom among many of our life insurance companies to require an examination of the urine when persons have made application for a policy, though only in cases where the amount was large, as, for example, $10,000 or over, or where, from the personal history or physical appearance, a kidney difficulty was suspected. From the fact that nearly ten per cent. of all the deaths of policy-holders in the United States Life Insurance Company, from whose records these figures are taken, occurred from Bright's disease, it was considered judicious to require an examination of urine in as many cases as possible, with the view of ascertaining in what percentage of applicants the urine was abnormal. This work was undertaken in the latter part of 1877. The result was that so many cases of albuminuria were discovered among those presenting themselves for insurance, that an examination of the urine was deemed necessary in the case of each applicant, and accordingly an order to this effect was issued by the executive. This furnished the opportunity to study the urine of persons apparently in perfect health and it was determined to make careful records of each case, using the most delicate means possible to detect any variation from the normal condition.

For our purposes, it was necessary to be able to discover albuminuria in its incipiency, and to do this special precautions were taken. It was found that after having boiled urine and added to it nitric acid, albumen, even though present in considerable quantity, might easily be overlooked if the test-tube were not perfectly clean and bright, or if it were not held in a light properly shaded. It is not sufficient to hold the tube before a dark background, as is sometimes done, as the light from the window or burner dazzles the eye. It is necessary that the light enter the room through a comparatively small opening, and that it fall upon the test-tube, allowing the eye of the observer to rest upon a background entirely dark.

The ease with which one may detect any solid substance in a liquid may be readily appreciated when we remember how completely filled with floating particles the atmosphere appears when a ray of sunlight enters a dark room through a small aperture, while in the same room with open windows the air seems perfectly clear.

After many experiments, the following plan has been found to answer the purpose fully: I have placed immediately below the window glass, and extending up to it, a large square of black pasteboard. The dark window shade is then drawn down to meet the upper margin of this pasteboard, and carried out at the bottom about one foot. Immediately under this the test-tube is held. By this method nothing but reflected light meets the eye. If anyone will place in a perfectly clean test-tube urine containing a considerable quantity of albumen, boil the upper portion, incline the tube to an angle of forty-five degrees, allow two or three drops of nitric acid to trickle down to the bottom, hold before an open window, or an unshaded burner, and afterward place in light reflected as described above, he will lose his faith in tests for albumen as ordinarily undertaken.

It is important that the acid should be carefully added, drop by drop, while the tube is in the reflected light, as in this manner the test is far more delicate. It has also appeared that albumen in a urine, alkaline, neutral, or even faintly acid, will not be readily detected. The urine must be distinctly acid, and when it is not, should be rendered so by the addition of acetic acid, and thoroughly well shaken before boiling. Unless this precaution is taken, albumen will be overlooked in many cases.

It is also necessary that the urine be allowed to stand quietly in the test-tube at least five minutes after the nitric acid is added, at the expiration of which time, if no cloudiness appears, it may safely be pronounced non-albuminous.

The following table is made up of cases coming under my own observation. The heart and lungs were normal in each, and nothing satisfactory was found to account for the albuminuria. Nor was there anything in the physical appearance of any, save possibly two, to warrant any suspicion of a renal disease. Each one considered himself in perfect health and really appeared as if he were. They were all excluded solely on account of albuminuria, and formed eleven per cent. of those presenting themselves to me for examination.

In nearly every case two or more specimens taken at different times were examined and albumen found in each.

| No. of Case. | Occupation. | Age | Weight | Height | Pulse. | Albumen. |
|---|---|---|---|---|---|---|
| 1 | Bank clerk.... | 23 | 125 | 5–8 | 76 | Well marked. |
| 2 | Com. merch't. | 23 | 150 | 5–6 | 86 | Slight trace. |
| 3 | Lawyer..... | 26 | 138 | 5–7 | 78 | Abundant. |
| 4 | Public works.. | 29 | 245 | 5–9 | 108 | Abundant. |
| 5 | Com. merch't. | 32 | 160 | 5–9 | 76 | Considerable. |
| 6 | Iron merch't. | 32 | 175 | 5–11 | 80 | Mod. quantity. |
| 7 | Telegraphy... | 33 | 152 | 5–8 | 84 | Well mkd trace. |
| 8 | Physician..... | 40 | 165 | 5–8 | 84 | Mod. quantity. |
| 9 | Printer. ..... | 40 | 176 | 5–6 | 82 | Well marked. |
| 10 | Hay dealer... | 41 | 185 | 5–11 | 74 | Abundant. |
| 11* | Bookkeeper in brewery..... | 41 | 210 | 5–10 | 85 | Mod.quan., also sugar. |
| 12 | Woollens..... | 44 | 175 | 5–6 | 84 | Abundant. |
| 13 | Whol. liquor merch ..... | 45 | 140 | 5–5 | | Considerable. |
| 14 | None..... | 47 | 167 | 5–5 | 92 | Abundant. |
| 15 | Ins. agent.... | 50 | 181½ | 5–9½ | 92 | Trace. |
| 16 | Safes. ..... | 52 | 257 | 5–8½ | | Albumen. |
| 17 | None..... | 53 | 140 | 5–9 | 88–90 | "Present." |
| 18 | Mec. engineer. | 54 | 180 | 5–10 | 108 | Considerable. |
| 19 | Dealer in vel-vets... ... | 57 | 160 | 5–5 | 76 | Considerable. |
| 20 | Lawyer..... | 57 | 195 | 5–7 | 84 | Well mkd trace. |
| 21 | Railroad presi-dent... .... | 61 | 186 | 5–9½ | 84 | Mod. quantity. |
| 22 | Clothing..... | 61 | 160 | 5–5 | 84 | Mod. quantity. |
| 23 | Mer. agency business ... | 61 | 161 | 5–9 | 78 | Well mkd trace. |
| 24 | Publisher..... | 61 | 165 | 5–8½ | 66 | A trace. |

In a number of cases, the applicant having been advised of the cause of rejection, returned to me, saying that his family physician had examined a specimen of his urine, and found it perfectly normal. I have been able, however, in a few such instances—indeed, whenever a personal interview has been had—to convince the physician that the examination, as made by him, would not have detected any but a considerable quantity of albumen, and great surprise was expressed on demonstrating the ease with which it is possible to overlook albumen, unless proper care is taken in the analysis. Such experiences have strengthened the conviction that tests as ordinarily made are far from being satisfactory, and I feel compelled to make this assertion boldly.

While it is impossible to deduce definite conclusions from the limited number of cases given above, it is interesting to note that albuminuria was found as frequently in the young as in the old, half the number being under forty-five years of age; that in nearly half the number there was excessive weight; that the pulse was rapid in nearly all, though very little importance may be attached to this. Casts were found in but two cases.

There is great difference of opinion as to what the clinical significance of albuminuria really is, but that it should exist in eleven per cent. of a large number of individuals considering themselves perfectly healthy, and with no discoverable cause for its presence, is a fact worthy of consideration. When no discomfort is produced by it, our attention as physicians may not be called to these cases until a late period, when other manifestations of kidney disease appear. Consequently such cases are rarely observed. It is proposed to keep the cases here noted, together with such others as may come to my notice, under close observation; to examine the urine from time to time, and note whatever changes occur in it and in the general condition of the individual.

* Applied for insurance and was accepted in December, 1877: no examination of urine. Applied again in three months, but was rejected, both sugar and albumen being found in urine. Died three months later.

By so doing for a number of years, we may hope to approach a little nearer to the real significance of albuminuria.

These investigations thus far seem to warrant the following conclusions:

1. Albuminuria does exist in a far greater proportion of individuals apparently in perfect health than is ordinarily supposed.

2. The method of testing as commonly practiced, fails to detect any but a considerable quantity of albumen, and it is absolutely necessary to use light properly shaded.

3. The urine, if not distinctly acid, must be rendered so before boiling.

4. In an alkaline urine, unless properly acidulated before boiling, at least five minutes must elapse after adding the nitric acid before it is safe to pronounce it non-albuminous.

5. The early morning specimen frequently contains no albumen, while that voided later in the day does. Consequently a morning specimen, which physicians usually require for analysis, is not to be depended on in testing for albumen.

6. Carelessness in procuring specimens, which are often received in an unclean vessel, or placed in a partially cleansed bottle, or in foul test-tubes (unfortunately used by many physicians), renders the analysis untrustworthy.

The vessel receiving and conveying the specimen, and the test-tubes used in testing it, must be absolutely clean; the re-agents used must be chemically pure.

The production of bacteria is favored by uncleanliness in the urine receptacle. If such urine remains for a few hours in a warm room in a stoppered or unstoppered bottle, a cloud will appear, indicating the presence of bacteria in myriads. At this time no test for albumen is satisfactory. By careful filtration through many successive layers of ordinary filter paper we can remove many of them, but nothing short of porous clay is thoroughly successful. This latter method is obviously inapplicable. The moral is, never examine any but fresh urine for albumen.

50 E. Thirty-First Street, N. Y.

# Reports of Hospitals.

## THE PENNSYLVANIA HOSPITAL, PHILADELPHIA.

### Notes of Practice and Peculiarities of Treatment.

(Prepared for The Medical Record.)

### SOME INTERESTING POINTS IN THE DIAGNOSIS AND PROGNOSIS OF TYPHOID FEVER.

The case was that of a sailor, admitted to the hospital on the 27th of January, who had been in good health until four days before his admission, when he complained of chilliness, of fever, and of nausea, but of no headache. His nose bled profusely, and his bowels became very loose. Upon his admission *his face was singularly flushed*, and he had a severe pain in his back. His temperature was 104¼° F., his pulse 92, and his respirations 24 to the minute. Nothing could be detected in the condition of the lungs to account for the heavy flush on his face. Upon examining the urine it was found to contain granular hyaline casts and bladder-epithelium. It was re-examined, with the same result.

The man remained in the same condition, with morning remissions and evening exacerbations, and with a few bronchial râles in his lungs, until the afternoon of the day after his admission, when profuse epistaxis supervened, and the characteristic rose-colored spots appeared on his abdomen, which grew swollen and tympanitic. *Still there was no headache.* On the evening of January 31st the man's temperature was 103° F. Between January 27th and February 1st there *was never a difference of more than one degree between morning and evening temperatures.* On the morning of February 1st the pulse was only 84, and the respirations 20 to the minute. The tongue was of the characteristic appearance—dry, cracked, reddish at spots, devoid of coating, varnished-looking. The typical spots on the chest and abdomen were slightly raised, and disappeared upon pressure. There was some gurgling in the right iliac fossa, and a moderate amount of abdominal distention. The bowels, after admission, were easily controlled by a single opium suppository daily.

On February 1st the face was still flushed. The breathing was rather harsh, and there were a few dry râles in the lungs. Still no headache, and intellect clear.

Dr. DaCosta, in his examination of the case on February 1st, and remarks upon it, developed some points of much novelty and interest.

The first sound of the heart he found to be very feeble, and there was most marked throbbing of the vessels at the root of the neck. He considered the case to be different from the great majority of cases.

He wished to lay great stress upon the presence of albumen in the urine upon the eighth day of the disease. The case would have to be very closely watched. The presence of the albumen might be explained in either one of two ways—(1) there might have been pre-existing disease of the kidneys as a complication of the fever, or (2) the typhoid fever had produced the disease of the kidneys. If the latter alternative were the true one—and it so seemed to him—the case was a very grave one, for the albumen was noticed as early as the fifth day of the disease. *Early albuminuria, as a symptom, never occurs in the course of typhoid fever unless the case is to be a very grave one.* Albumen is quite commonly found in the urine of typhoid fever patients in the third week of the disease. *The slight difference between morning and evening temperatures so early in the attack was another bad sign.*

Furthermore, the first sound of the heart was thus early altered. Alteration in the first sound of the heart does not usually occur until late in the course of the disease. *When the heart is affected early, it becomes a warning.*

In closing, Dr. DaCosta wished to call attention to the existence of flushed face, *without any disease of the lungs. It always was enough to raise suspicions as to the nature of the disease, especially when accompanied by great throbbing of the vessels at the root of the neck.* This fact had struck him many years ago, and, upon entering a sick-room and finding these coincident symptoms, he used to make a rough diagnosis of typhoid fever at once, without any further examination.

All these symptoms being as they were, it was determined to shape the treatment accordingly. Up to February 1st, the man had been taking f ℥ iij. of whiskey daily. This quantity was at once increased to f ℥ v. Together with this, gtt. x. of muriatic acid was given every four hours. The daily distributed dose of quinia was gr. x. The man's diet was very carefully regulated, consisting principally of beef-tea and milk. Diarrhœa was checked by opium suppositories. The patient was sponged morning and evening with tepid water.

Feb. 20th.—The man is now convalescent, having been carried through the attack by careful treatment. The albuminuria has disappeared.

### ARTERIO-VENOUS ANEURISM.

There was recently a very interesting case of this description in the wards: that of a man whose pistol had been discharged accidentally while he was taking it out of his pantaloons pocket, the load passing completely through the right thigh from within outward, and piercing both the femoral artery and vein. Immediately after the accident the man was cognizant of a sawing sound caused by the passage of the arterial blood into the vein. When the patient returns from his home whither he has gone to settle his affairs, it is the intention of the attending surgeons to ligate the femoral artery above and below the point of injury.

### INDICATIONS AGAINST PARACENTESIS THORACIS.

The case had been in the wards for some time with the history of an attack of pleurisy following exposure. When the patient was first admitted in November, examination revealed an old right-sided pleurisy with some evidence of abscess of the right lung. Subsequently the signs of pleuritic effusion developed rapidly, and it was very evident that there was considerable effusion in the lower part of the chest.

The question which arose was whether, with the evidence of a right-sided pleurisy, which remained rather stationary, together with the suspicion of tuberculous disease, resort should be had to aspiration, or whether the endeavor should be made to get rid of the effusion by medicinal means. When the patient was first admitted he had already had the effusion for several months.

Upon thinking the case over and considering the strong probability of disease of the lung itself, though masked; finding also, no marked irritative fever, and having, therefore, no reason to suppose that the chest was full of pus, Dr. DaCosta concluded to try and get rid of the effused serum by medicinal means, and determined not to tap the chest. The result justified the conclusion reached.

On February 1st the dulness still remained low down in the right chest. The voice was transmitted from all other parts of the lung. So too, with regard to the vocal fremitus. The breathing was also fuller and deeper.

The treatment consisted principally in the administration of the tincture of the chloride of iron with acetate of ammonium. Occasionally a Dover's powder was given at bedtime. The food was generous and counter-irritation was frequently made with iodine or blisters.

From the good results already shown, Dr. DaCosta was confident that this treatment ought to be persevered in.

The patient is at present taking a tablespoonful of Basham's mixture four times daily, and a tablespoonful of cod-liver oil thrice daily, on account of the suspected latent disease of the lungs.

The case was regarded as proving that it is never wrong in old cases of pleural effusion to give a fair trial to medicinal means first, and never to try tapping until we are quite sure that all other modes of relief are of no avail.

The *three* points particularly suggested and empha-

sized by the case were: (1) that we should be guided rather by the effects of an effusion than by the time it has lasted; (2) the value of Basham's mixture and repeated counter-irritation in the treatment of chronic pleurisy; (3) the possibility of tuberculous disease of the lung as a co-existent factor is always an additional reason for not tapping, since surgical interference should never be attempted when this complication exists.

THE TREATMENT OF FRACTURED PATELLA.

Dr. Thomas G. Morton has treated all the cases of fracture of the patella which have been brought into the wards for several years past with his improved modification of Malgaigne's hooks. In every instance the treatment has been permanently successful. Dr. Morton's first modification of the Malgaigne hooks consisted in making the hooks longer and straighter, but this improvement was shown to be of but slight advantage. Dr. R. J. Levis then made a further modification of the Malgaigne pattern, by cutting it into two separate pairs of hooks. This modification also was thrown aside after using it once. The last and most useful modification by Dr. Morton consists in cutting the hooks into two separate pairs, each pair consisting of one fixed and one movable hook. This modification will be fully explained and its benefits illustrated in an article from the pen of Dr. Morton, soon to appear in the *American Journal of the Medical Sciences.*

THE TREATMENT OF FRACTURED CLAVICLE.

Dr. D. Hayes Agnew treats fractured clavicle by perfect rest on the back in bed, with the head slightly elevated. But as the patient soon becomes restless, and as it is impossible to secure perfect quiet after the third day unless a nurse be secured to arrest every motion of the patient both by day and night, at the end of that time and when the ends of bone have, as it were, lost their disposition to get out of place, the patient is raised carefully from the prone into a sitting posture and put in restraint by the introduction of an axillary pad four inches wide and five inches long, and tapering rapidly to a point, which elevates the arm and supports the shoulder, while a long strip of adhesive plaster, 3½ inches wide (Sayre's dressing), is passed round the body with a loop to support and elevate the arm.

ANEURISM.

Dr. James Hutchinson has seen considerable benefit derived from the administration of very large doses of the iodide of potassium. In one case lately in the wards, as much as sixty grains of this drug was taken thrice daily with the effect of quite markedly diminishing the size of the aneurism. Some time since in the case of an aneurismal sac bulging from the subclavian artery, Dr. Richard J. Levis carried pieces of horse hair through the walls of the sac and so succeeding in producing partial coagulation of the blood, but not enough to materially benefit the case.

PNEUMONIA.

The routine treatment of pneumonia in the wards of the hospital consists in the internal administration of from eight to twelve grains of quinia daily, together with a moderate amount of nitrate of potassium and of the tincture of digitalis every two or three hours. Plenty of stimulus is administered. In a case recently under treatment, Dr. DaCosta gave in place of the nitrate of potassium a teaspoonful of the spirits of ammonia in water every three hours as an alkali. This use of ammonia (as an alkali) was so successful in Dr. DaCosta's hands that Dr. Hutchinson tried it in one of his cases with equally good results.

SURGICAL SHOCK

Is treated by the hypodermic injection of carbonate of ammonium mixed with brandy.

# Progress of Medical Science.

INTRAVENOUS INJECTION OF MILK.—In a case of extreme exhaustion consequent on typhoid fever, Dr. McDonnell, of Dublin, made an intravenous injection of milk with very gratifying results. The operation was performed on the 22d of January, in the presence of several members of the profession. The milk was fresh drawn from a cow on the premises, and about ten ounces passed into a vein at the bend of the elbow. During the injection the pulse rose and became fuller and stronger; immediately after the completion of the operation the pulse became feeble, the respiration labored, and the capillaries congested. This stage of depression lasted about two hours, when a distinct and truly remarkable reaction took place. The patient passed a quiet night, and expressed himself as much better and stronger on the following day. On the seventh day after the operation the patient was making good progress, taking nutriment freely, although, of course, weak and exhausted.—*The Lancet*, February 1, 1879.

THE PHYSIOLOGICAL RELATIONS OF HYPOXANTHIN AND LACTIC ACID.—Hypoxanthin, or, as it is sometimes called, sarkin, is well known to be a frequent, if not constant constituent of the blood of leukæmic patients, and the means of detecting it were greatly improved by Salkowski. It remained uncertain, however, whether it was to be considered as always present in healthy blood. This, and several other points in regard to it, have recently been investigated by George Solomon, who has published the results at which he arrived in the *Zeitschrift für Chemie* (B. II., 1878, p. 94). He finds that hypoxanthin is a normal constituent of the marrow of the bones in man, and that it is also normally present in various glandular organs. It is always present in blood obtained after death, both in man and in dogs. Its presence in the blood and other organs after death in leukæmic patients affords no assistance in determining the pathological changes occurring in that disease. With rare exceptions, hypoxanthin is only found in the blood after death. Its absence from blood drawn from a vein during life is probably due to the fact that it rapidly undergoes oxidation. The same holds good of xanthin. Lactic acid is also nearly constantly present in the blood after death, and its presence in the blood of leukæmic patients after death is therefore destitute of significance. Lactic acid is absent, and probably for the same reason that hypoxanthin is absent, in the greater number of specimens of blood drawn from the veins during life. The lactic acid of the blood abstracted after death is, in all probability, the result of the decomposition of the carbo-hydrates of the blood. Lastly, hypoxanthin and xanthin are produced outside of the body by the action of the pancreas ferment on fibrin.—*The Lancet.*

PHYSIOLOGICAL ACTION OF NARCISSA.—About two years ago Mr. Gerrard, of London, extracted from the flowering bulbs of the common daffodil an alkaloid,

to which he gave the name Narcissa, and which seemed, in its physiological action, in many respects, to resemble atropia. Later, from the bulbs which had done flowering, an alkaloid was obtained, apparently similar in its general chemical characters to the first, but differing markedly in its physiological action. These two alkaloids were carefully studied by Sidney Ringer, M.D., and E. A. Morshead, M.R.C.S., and their investigations show that the alkaloid from the flowering plant: I. Dries the mouth. II. Checks the cutaneous circulation. III. Dilates the pupil, especially in topical application to the eye, the dilatation being preceded for a short time by contraction. IV. Quickens the pulse. V. In a great measure antagonizes the effects of muscarin and pilocarpin on the heart of frogs. VI. Directly applied to the frog's heart slows and weakens its contractions.

While the alkaloid extracted from the bulb after flowering: I. Causes copious salivation. II. Probably increases cutaneous secretion. III. Internally applied slightly contracts the pupils; topically applied, dilates the pupil, but less so than the alkaloid of the flowering plant. IV. Slightly relaxes the bowels. V. Causes slight faintness and nausea.

An extract of the flowered bulbs exhibits emetic and purgative properties not possessed by the alkaloids. Mr. Gerrard also prepared alkaloids from the bulbs of the common snow-drop (Galanthus nivalis), both before and after flowering, and these exhibit a complete parallelism with the alkaloids from the daffodil.—*The Journal of Physiology*, Jan., 1879.

Diabetes; Death from So-called Acetonæmia.—Kussmaul was the first to direct attention to that peculiar mode of death in diabetes to which he gave the name acetonæmia. The symptoms he observed were sudden oppression in the chest, as if there were some obstacle to breathing; violent, and for the most part hurried, respiratory acts; accelerated heart's action, and rapid coma, which lasts till death. Dr. Southey reports three cases, occurring in his own practice, in which death took place preceded by similar symptoms, and which he considered identical with the acetonæmia of Kussmaul. They were all three marked by a peculiar soporous condition, with dry tongue and cyanosis; not hurried breathing but pulmonary blood-stasis; no evidence of lung consolidation; noisy, sterterous, apoplectic-like breathing, but no paralysis; intellectual capacity retained, but exercised only under strenuous and unwilling effort. Of the precise nature of the blood-changes, which gave rise to these clinical phenomena, Dr. Southey is uncertain; but in all three cases, when the respiratory symptoms appeared, the peculiar sweet-hay halitus of diabetes was absent, and, if this halitus be due to the excretion of acetone by the lungs, the suppression of its excretion may account for the accumulation of the poison in the blood; or the sudden increase of its quantity in the blood may arrest the respiratory circulation and chemical interchanges.—*The Lancet*, Feb. 8, 1879.

Œsophagotomy.—Œsophagotomy, though an established operation, is sufficiently rare to render the following case of interest. On July 6th the patient swallowed a piece of the vulcanite plate belonging to her artificial teeth. The fragment was a flat triangular bit, half an inch long by a quarter broad, and had a piece of silver wire a quarter of an inch long projecting from one end. A pricking pain was soon complained of, in the course of the œsophagus, a little above the midpoint of the sternum, increased by the recumbent position, and in that posture accompanied by a feeling of suffocation. Nothing but fluids could be swallowed, and even these occasioned considerable pain. A week after the accident profuse salivation set in, which lasted for two days. On July 21st her voice began to fail, and by August 1st she could only speak in a whisper. The pain grew worse, and on the 16th of August the operation of œsophagotomy was performed in the usual manner. After some search the missing fragment was found, lying against the anterior wall of the œsophagus, about two and a half inches below the sternal notch, and was easily removed with a pair of urethral forceps. The upper portion of the wound was then brought together, but the lower part was allowed to gape, and was covered by a piece of lint dipped in carbolic oil. For the first forty-eight hours she was fed *per rectum*, afterwards *per vias naturales*, a portion of the food trickling through the wound, but no other inconvenience being experienced. After this the patient did well, the wound was healed by October 10th, and by November 21st the voice had become quite natural. At this date there was no pain, and no difficulty in swallowing.—*The Lancet*, Feb. 1, 1879.

Epithelioma in Kashmir.—According to Dr. Maxwell, epithelioma is much more common in Kashmir than in other parts of India or in Europe; but considerable clinical variation from the European disease is observed. Fully 50 per cent. of the cases recorded occurred on the abdomen, and 27.7 per cent. on the thighs, regions but seldom affected in Europe, where the face is affected in about one-half of all cases. Dr. Maxwell's epitheliomas usually presented the appearances of irregular, nearly circular or oval ulcers, from the size of a sixpence to that of a crown, with everted indurated edges, an irregular coarsely-granular base, of a yellowish or brick-red color, discharging a little purulent or sanguino-purulent fluid, which, on microscopical examination, was sometimes found to contain characteristic nests or globes of epithelial cells. They are of slow growth, and are much less malignant than the European epitheliomas; no case of return of the disease being recorded during ten years of observation. The lymphatic glands are rarely affected, are never cancerous, and but seldom enlarged. Age and sex appear to have about the same influence as in Europe. The disease is attributed to the kângri or fire-pot, which every Kashmiri carries about with him or her, for purposes of warmth. These kângris consist of clay pots, about four inches in diameter, encased in wickerwork, and contain live charcoal, or wood ashes. They are carried under the night-gown-shaped garment, which both men and women wear, and are often in contact with the abdomen. A portion of the wickerwork not uncommonly wears off the heated clay vessel, which, if carelessly held, may severely burn the skin of the abdomen and thighs. Many of the sores had, to the patient's knowledge, originated in burns from the kângri. It is interesting to remark the analogy between the heated clay-pipe causing epithelioma of the lip in Europe and the heated-clay kângri, causing the same disease on the abdomen of the Kashmiris.—*The Lancet*, Feb. 1, 1879.

Ununited Fracture.—An hypodermic injection of glacial acetic acid (℥v.–x.) between the ununited ends of the bone is highly recommended by Mr. Fitzgerald, surgeon to the Melbourne Hospital, in the treatment of *ununited fractures*. At first it is attended by very sharp pain; this rapidly subsides. In this surgeon's hands this treatment has been uniformly successful.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, March 29, 1879.


## THE STATE BOARD OF HEALTH OF ILLINOIS AND THE MICHIGAN MEDICAL ACT.

In our last we alluded to the Illinois State Board of Health, a body created by the Legislature of that State with full power to regulate the practice of medicine within its jurisdiction. Among the edicts of this board was one forbidding what it termed unprofessional advertising. It was not long before the board had an opportunity of testing the powers conferred on it by statute. The board, it appeared, took exception to certain advertisements inserted in the Chicago papers by a Dr. Aiken, and notified him that if continued it would revoke his license. Upon this he applied to the Cook Circuit Court for an injunction to restrain the Board of Health from interfering with his license. The decision of the court was to the effect that the Legislature had given the State Board full power to regulate the practice of medicine as it saw fit, and that if it declared that certain advertisements or other practices were unprofessional, and ordered their discontinuance, that there was no doubt but that the statute gave them plenary jurisdiction in the matter. The injunction was therefore refused. The case was then carried to the Appellate Court of Illinois on the question of the constitutionality of the law creating the State Board of Health. The Appellate Court has recently decided that the law is constitutional, and confirms the board in all its powers. It will be remembered that this board is a sort of mixed commission, consisting of representatives of the regular, homœopathic, and eclectic methods of practice. The good work which it has already done in Illinois can hardly be over-estimated, and unless some unforeseen obstacle should arise, that State will soon be purged of the most obnoxious forms of quackery. The influence of the Illinois law has, however, not been confined to that State, but has been felt in neighboring States, and even here, in the arrival and settlement of many who have failed to come up to the requirements of the Illinois regulations. Let a few more Western States pass similar laws, permitting only those who have had a medical education to practise, and we will soon see New York State deluged with a class of practitioners who will find the climate of the East more congenial than the one they are obliged to leave.

The act passed by the Legislature of this State May 11, 1874, should have been denominated an "Act for the Encouragement and Protection of Quackery," for in its practical applications it has well merited this title, as a careful perusal of it in connection with some of the other laws of the State will show. Some of the laws still extant, however, appear to give the various county medical societies of the State certain powers in this matter which should not be overlooked, but be brought to an early test. The State has, however, conferred co-ordinate powers on certain sectarian societies, and it becomes a question of serious moment whether the regular societies should alone undertake the defence of the rights of the profession, or whether there should be a co-operation of all educated and legally qualified practitioners; or, again, whether it is not better to leave everything *in statu quo*. Without a fuller acquaintance with all the facts in the case we are hardly in a position to come to a definite conclusion. It is certain, however, that unless a change occurs it will soon be a difficult matter for the average qualified practitioner to earn a respectable livelihood. Those now in high position and of established reputation may not experience suffering in their own day, but to our certain knowledge a goodly number of thoroughly qualified and capable men are at present sadly straitened in their circumstances, and their number is likely to increase rather than diminish, unless something be done to prevent the increase of unqualified practitioners. As we before remarked, this matter should receive the prompt attention of the officers of the county societies. We have every reason to believe that the officers of our own county are fully aware of the gravity of the situation, and have taken the questions involved into very serious consideration; but what action they will take in the matter we have no means of knowing.

A medical bill has been recently introduced into the Michigan Legislature which appears to receive the general approbation of the profession of that State. Instead of a mixed board, like that of Illinois, it provides three separate State boards of co-ordinate jurisdiction, representing the regulars, homœopaths, and eclectics. In fact, it is little better than the New York law of 1874, and, if the bill becomes a law, Michigan will soon share with New York the distinction of being the paradise of quacks.

### THE LUNG-PLAGUE.

UNDER the authority of a recent act of the State Legislature active measures have been taken for stamping out pleuro-pneumonia amongst cattle. All veterinary surgeons or owners of cattle are now required to report every case of the disease that comes under their care, and the animal is then either quarantined, or slaughtered. The emergency demands such energetic action, for contagious pleuro-pneumonia is an insidious, obstinate, and destructive disease which only the most persistent efforts can eradicate. These our Legislature, with a somewhat surprising foresight, has provided for.

The contagious diseases of cattle have in many respects a peculiar history, and their study may in time throw much light upon human pathology. Thus there is a unique disease in the form of the Texas, or splenic fever, of which the pathognomonic lesion is an enlarged and disintegrated spleen. This affection is enzoötic, and is analogous somewhat to remittent fever in man. Yet it can be propagated, like cholera, by the excrement, and has therefore peculiar features, whose further examination may add to our knowledge of infections.

The present lung-plague has a morbid anatomy and a clinical history which resemble, in many respects, acute phthisis. It is, however, an infectious and purely contagious disease, and has its pathological analogue in small-pox.

Contagious pleuro-pneumonia began its recorded ravages in Europe nearly two hundred years ago. It was imported into this country in 1843, and has since then spread all along the Atlantic States, from Massachusetts to Virginia. It was driven out of Massachusetts and Connecticut after a seven years' fight, but has remained in the other States to a greater or less extent. The disease has an incubation of from one to sixteen weeks, or even more. At the end of this incubation it may develop only in a latent form, giving but few symptoms.

These two facts of a long incubation and possible latency add to the danger and difficulties connected with the disease.

In a well-marked case the invasion begins with shivering; the temperature is 104° or 105°, and there is a cough. Without attempting to enumerate them all, there will develop subsequently the symptoms and signs, such as pain, loss of appetite, peculiar posture, mucous discharges, etc., which would naturally attend a high fever, and a pleuro-pneumonia of one or both lungs. The animals gradually become weaker, and may die within a week or two in the acute stage, or linger on to die later, with evidences of marasmus and purulent infection, or they may recover. The disease lasts in its acute stage from one to three weeks. Then follows either death, immediate or slow, or convalescence, which extends over from one to three months. The mortality varies largely, but on an average perhaps from a quarter to a half of the cases will die. The post-mortem examination shows a pleurisy with serous and plastic exudation, and a pneumonia with fibrinous exudation which passes through the stages of red and gray hepatization as in man. Later in the disease there may be empyema, cavities, interstitial increase, gangrene, and the various forms of lung disorganization. Either one or both lungs may be affected.

A search for the germ or even constant bacteria in this disease has been made in vain. Nevertheless there is a specific virus which is contained in the breath, the blood, and secretions. The disease may be communicated through the air, by inoculation, and by the act of coition.

The men who attend the cattle may also convey it. It can be inoculated into other animals, but probably not into man. The contagium is not so active in the early part of the disease, but even during convalescence it may infect the healthy.

No treatment will modify the course of the symptoms very much, and indeed, no treatment but the axe to the os frontalis is now recommended, except in special cases.

If a drop of the fluid squeezed from the lung is inoculated near the root of the tail, it will, as a rule, cause a local inflammation only, which will nevertheless give the animal immunity for about two years. This practice is not often advisable, however, for it may produce the full disease, and it always makes the animal a centre of contagion.

Slaughtering is the only efficient method of dealing with the trouble, and this is being done largely at present. If our State continues to act with its present vigor, we may expect to be rid of this unfortunate affection in a few years.

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### THE SANITARY INSPECTION OF OUR PUBLIC SCHOOLS.

THE progress which has been made recently by the Board of Education in investigating the sanitary condition of school-buildings is quite significant. From the time the *New York Herald* published a report of an inspection of the public schools, last December, until the present, the pressure of public opinion has compelled an action on the part of the Board of Education which it positively refused to do before. Every person who was not a member of the board in question had good reason for believing that the sanitary condition of the schools was exceedingly bad. All suggestions bearing upon reform in such matters were ignored by the Commissioners. Medical experts spoke in vain, medical societies passed resolutions which were tabled, and even the Health Board was hampered in its spasmodic efforts at inspections. Laws which might have been made for improving the sanitary condition of the schools have been defeated because the board concluded that there was

no necessity for them. This has been the case for the past six years and until the *Herald* report was made public. At the meeting of the board, succeeding the said publication, the matter of sanitary reform was brought up, and, by a vote of nineteen to two, promptly was referred to the Committee on Warming and Ventilation, of which Mr. Wickham was chairman. This gentleman, who at first thought it was only necessary to lower the sashes in the school-rooms to secure all the necessary ventilation, had reason to change his views very decidedly as he gave time and attention to the matter. After six weeks of investigation one hundred and thirty reports were made from principals of schools regarding deficiencies in ventilation, heating, and the like. As a result of this mass of adverse testimony regarding the sanitary condition of the schools, Mr. Wickham resigned his chairmanship of the committee at the last meeting of the board, maintaining that it would take eight hours of inspection daily for some time to come to investigate the different cases properly.

The admission on the part of the distinguished commissioner, that any inspection was necessary at all, is such an important one for the cause that he may be forgiven for resigning the chairmanship of his committee at such a critical moment. From this point, however, we can count upon the chances of real progress being made in these necessary investigations, some sensible conclusions reached and some practical suggestions made. This hope is warranted by the appointment of Mr. Isaac Bell as chairman of the committee. This gentlemen has so thoroughly identified himself with the cause of sanitary reforms heretofore, and has rendered such valuable service to the cause of school hygiene in particular, that his appointment on the committee will be received with the greatest satisfaction by the profession and the public at large. We have no doubt that the inspections will be thorough, and that the recommendations which will be made will bring about desirable results. Although the inspections which should have been made during the past six years will be crowded into a period that would scarcely occupy as many weeks, it is nevertheless quite important that a report should be made with the least possible delay, not only for the sake of the school-buildings which are at present crowded with scholars, but also for those buildings now in process of construction.

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### INSANE ASYLUM REFORM.

THE recent speech, made in the State Senate, against the Commissioner of Lunacy and his office, together with the subsequent petition to the Legislature for an investigation into the management of the State insane asylums, give ground for hope that the attempts at reform, which we have heretofore frequently urged, will at length be made. It is time that some initiative measures were taken; and therefore, although we cannot endorse either speech or petition as perfectly just, they are both very opportune.

The Commissioner of Lunacy was attacked by Senator McCarthy, who introduced a bill to abolish the office altogether, and transfer its duties to the State Board of Charities. His charges appear to be pretty well sustained, but we wait to hear from the commissioner himself before passing judgment upon them. They apply, at any rate, rather to the fitness of the commissioner for the position than to his honesty and conscientiousness. But, whatever may be decided about the incumbent, we do not believe that his office should be abolished, or that the State Board of Charities should perform its duties. These are laborious, responsible, and important; and they should not be imposed upon an unsalaried board which is already overworked. We believe, rather, that much of the inefficiency of the present commissioner's labor is due to his being alone, with limited power and limited scope of action. It is difficult for a single individual to be a thorough inspector and reformer of the institutions of a large State. He can scarcely escape the effects of a social and political environment, both of which tend to make him lax in his duties. With a board of lunacy, however, composed of several members, and with well-defined authority and duty to keep the exact state of asylum management before the public, some genuine reform can be accomplished; and not only accomplished, but made permanent. It is by such means that British asylums have been brought to their present high pitch of excellence, and it is time for the system to be adopted by us. Indeed, it is doubtful whether an investigation into the management of the asylums, however complete, will result in any permanent good, unless some such organization is created.

Of the petition which prays the Legislature for an investigation, we will only say this: Its object is excellent, for it will disclose to the public and impress upon their attention, the undoubted evils of asylum management, already known to a few. The petition itself, however, might have been made stronger, both by dropping certain very trivial charges which only increase its bulk, and by adding such other ones as would show, what is really the case, that the State is quite as much at fault in the present matter of mismanagement, as the medical superintendents, who have to accommodate their institutions to inadequate laws, meagre appropriations, and political influences.

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A NEW ANTIPERIODIC.—A decoction of *chestnut bark* (outside bark of the tree, 40 3; boiling water, 1 qt.; steep fifteen minutes) is extolled by Dr. R. F. Hood. Clear out the bowels with a good purge. Then let the patient take a teacupful of the decoction every three hours till the day of the expected return of the paroxysm; then wait till the 6th, 7th, 13th, 14th, 20th, 21st, and 27th days after, when repeat the same treatment for each respective day.

# Reports of Societies.

## NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, February* 26, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

### DEFORMITY PRODUCED BY A BURN.

DR. A. C. POST presented two photographs, representing the deformity produced on the face of a young lady by cicatricial tissue following a burn. When twenty years of age she fell face foremost upon a fire. In consequence of the burn there was extreme eversion of the upper eyelid upon the left side, and considerable eversion upon the right side. Her eyebrows were entirely destroyed, and her forehead was covered with cicatricial tissue. A series of operations were performed, commencing December 22, 1876, the last being about two years after the first. The feature of special interest in the case, besides overcoming the ectropion and other deformities, was replacing the eyebrows by flaps transplanted from the temples, the hairs being plucked and trimmed to give them proper form. At the time he performed the operation he supposed it was the first time that new eyebrows had been formed; but he had subsequently ascertained that Dr. Pancoast, of Philadelphia, had done the same thing, but that the operation had never been published except transiently, and had not been known to the general profession.

The details of Dr. Post's case will appear in the transactions of the American Medical Association for 1878.

### MYXO-SARCOMA INVOLVING THE LEFT SIDE OF THE UPPER JAW.

DR. POST also presented two photographs, one exhibiting a front and the other a side view, of a myxo-sarcomatous tumor in the left side of the upper jaw. The tumor was remarkable for its extremely rapid growth. The man, a short time before Christmas, 1878, had two or three carious teeth extracted from the left side of the upper jaw, and, at about that time, noticed for the first time that there was a tumor connected with the alveolar process. Its entire growth, therefore, had apparently taken place within about eight weeks. He was admitted to the Presbyterian Hospital, under the care of Dr. George F. Shrady, who would have operated had he not been prevented by sickness. There was obvious reason for immediate operation, the growth of the tumor being exceedingly rapid, and repeated hemorrhages having occurred, and accordingly Dr. Post performed the operation that afternoon. The specimen was presented, and consisted of a tumor which involved the entire alveolar portion of the jaw, the substance of the jaw being almost entirely destroyed. The only portion of the bone which retained its integrity was the roof of the antrum and the nasal process. There was also an enlarged gland under the angle of the ower jaw. It was the opinion of some of the surgeons that the enlargement might be merely sympathetic, and therefore the gland was not removed. There was one circumstance in connection with the operation which was a matter of some interest. At the suggestion of Dr. Briddon the nasal cavity was not opened until all the dissection above was made, and the blood-vessels secured. When that was done the head was held over the table so that the blood gravitated away from and not towards the fauces. The first incision was made just below the orbital brim, and extending to a point over the malar bone. A second incision was made by the side of the nose, but was not completed until the orbital brim was exposed, and a section made below it into the antrum with Hay's saw. The second incision was then completed by extending it around the ala of the nose, and through the middle of the lip. The bone was then fully exposed, two teeth were extracted, the alveolar process was divided, and with the handle of a pair of forceps the mass was pried out. The soft consistence of the tumor did not permit of its removal by seizing with forceps. A portion of the growth extended apparently into the cells of the ethmoid bone. As much as possible was scraped away, and chloride of zinc of the strength of one drachm to the ounce was applied as thoroughly as could be to the portion remaining. The portions of the wound not touched with the chloride of zinc were covered with carbolic acid, one to thirty. Lint was introduced to fill the cheek, and held in position by a thread, which was passed out of the angle of the mouth around the ear and over the temple to the forehead, where it was secured by adhesive plaster. The edges of the wound were then carefully united by sutures, and the patient was left in a comparatively comfortable condition.

DR. HOWE asked Dr. Post if he experienced any more difficulty in making the necessary dissection than when the incision was at once made through the lip?

DR. POST replied that the operation was not prolonged by the method, and certainly the time during which blood flowed into the nasal cavity was diminished, and also the time which the head was held over the table was diminished.

### ANEURISM OF THE ARCH OF THE AORTA UNSUSPECTED DURING LIFE.

DR. J. L. PEABODY presented a specimen of aneurism of the arch of the aorta that had not been suspected during life. The history of the case was as follows: Frank Smith, æt. 38 years, a native of the United States, single, and a seaman, about three months ago caught cold. Since that time he had had cough so severe at times as to cause vomiting and shortness of breath. One month ago he began to have purulent expectoration. He had earache upon the left side for about four weeks, but there was no discharge. A few days ago he had a chill, which was followed by fever and sweating. When admitted to the New York Hospital there was slight exaggerated respiration, but otherwise the chest signs were negative. Treatment: quinine. He had a second chill. The treatment was continued, and the chills ceased. On the 21st day dry râles were heard at the apices of the lungs, and there was a small quantity of blood in the sputum. On the 22d day a systolic murmur was heard at the base of the heart. On the 25th day the patient was suddenly seized with profuse hæmoptysis, and died before anything could be done.

*Autopsy.*—Body anæmic, but tolerably well nourished; no marks of external violence; no œdema; nostrils and mouth blood-stained; frothy blood on face. A few loose adhesions were found over both lungs. Trachea and bronchi filled with blood. A small sac was found on the descending portion of the arch of the aorta, just below the level of the bifurcation of the trachea. It communicated with the left bronchus by a linear opening about one-quarter of an

inch long. The size of the sac was about half that of a hen's egg. It was united by firm adhesions to the root of the left lung. Blood was extravasated throughout the lung-tissue. Heart normal in size and appearance. The other organs were normal. There was no clot in the aneurism.

PYÆMIA WITHOUT EXTERNAL WOUND RECOGNIZED OR RECOGNIZABLE UPON CAREFUL EXAMINATION—MICROCOCCI IN THE MALPIGHIAN TUFTS OF THE KIDNEY.

DR. PEABODY also presented a microscopic specimen which exhibited micrococci in the Malpighian body of the kidney. It was prepared from the kidney of a patient who gave the following history:

A female patient, æt. 26, single, laundress, and a native of Ireland, was admitted to the New York Hospital Feb. 10, 1879. She had never had rheumatism. Three years ago she had chills and fever. Three weeks ago, while ironing, she suddenly "began to feel badly," and went to bed. She had chills—four or five every day—fever, and severe sweats. Her right arm, fingers, shoulder, and right side of neck and back were swollen, hot, and painful. All those symptoms lasted until one week ago. Up to that time her menses were regular, but then ceased unexpectedly. Five days ago swelling, pain, and heat appeared in her ankles and legs up to her knees. The integument was bright-red, hot, swollen, and painful. The pain and heat extended up the left thigh to the groin. On admission, her eyes were bright; tongue dry and hard; pulse, 160; temperature, 106° F.; and respiration, 55; face anxious; and bowels constipated. Skin showed patches of discoloration over ankles, legs, and knees. Treatment: brandy, quinine, and salicylic acid.

Feb. 11th.—Patient delirious, and had five loose stools. Temperature, 103° F. in morning, 106° F. at noon, 104° F. at 2 P.M., and at 4 P.M. began to rise again. Pulse feeble. Patient died at 8.20 P.M., with temperature of 107.$\frac{8}{10}$° F.

*Autopsy.*—Body not emaciated. Patches of discolored skin over both legs, and of a bluish color. Œdema of both lower extremities marked. Subcutaneous fat over abdomen about two inches thick. Small amount of reddish fluid in peritoneal cavity; no peritonitis. The diaphragm on the right side rose to the second, and on the left side to the third intercostal space.

*Heart.*—Muscular tissue pale, yellowish brown, and yellow streaks; post-mortem staining of valves and aorta; valves competent and aorta atheromatous.

*Lungs* congested and somewhat œdematous. Bronchi contained frothy mucus; mucous membrane reddened and thickened. Bronchial glands enlarged. Old fibrous thickening in upper lobe of right lung.

*Spleen* enlarged and softened; weight, 430 grammes; pulp of syrupy consistence.

*Kidneys.*—Capsule adherent in places, soft, pale, anæmic; increase of fat in cortex; several whitish streaks in pyramids.

*Liver* pale, anæmic, fatty.

*Intestines* normal.

*Ovaries.*—Both contained small cysts.

*Uterus.*—Mucous membrane softened and pale.

*Veins* of pelvis normal.

*Brain* and its membranes normal.

*Joints.*—Collections of pus found in right wrist-, elbow-, ankle-, and in left elbow-, ankle-, and shoulder-joints. The femoral vein on the left side contained a thrombus, extending from Poupart's ligament more than half-way to the knee, broken down into a reddish pus in places, and adherent to the walls of the vessel, which were discolored. On the right side the vein showed a normal clot and post-mortem staining.

*Microscopical Examination.*—Heart: muscular tissue very fatty. Kidneys: large colonies of micrococci were found plugging up the capillaries of the Malpighian tufts in places. In the *liver* many patches of pigment were found, but no micrococci.

DR. PEABODY thought the case seemed to confirm Virchow's theory that pyæmia was not a single, but a duplex disease, having phenomena dependent upon embolism, and other phenomena dependent upon absorption of some more subtle poison into the blood.

DR. L. A. STIMSON referred to a recent paper by Kocher, in which was given an account of experiments that might aid in explaining the appearance of bacteria in abscesses without an external wound. The conclusions reached by Kocher were that, in connection with wounds made in the shaft of long bones and treated antiseptically, the animals did perfectly well until fed upon putrid food for one or two days, and then the pus became offensive, and bacteria were found in the medullary canal. The same author also mentioned two or three cases of pyæmia developed in connection with strumous enlargement of lymphatic glands, and one case in which pyæmia occurred after catarrhal inflammation of the intestine.

DR. PEABODY remarked that Billroth had reached the conclusion that bacteria were simply carriers of infection; that they were found in wounds which did not do badly and no pyæmia followed, and yet after other wounds presenting the same appearance pyæmia was developed.

ANEURISM OF THE RENAL ARTERY.

DR. L. A. STIMSON presented an aneurism of the renal artery. It was removed from the body of a man, sixty-five years of age, who died of gouty kidneys. When first removed it was about one-half an inch long, and of ovoid shape. It was situated just above the bifurcation. There were also several fusiform dilatations of the branches of the artery. He had not found a recorded case of aneurism of the renal artery. There were no other aneurisms in body.

EXOSTOSIS FROM RIGHT PARIETAL BONE.

Dr. Stimson also presented an exostosis of the right parietal bone, remarkable for its density and its size. It was removed from the skull of a woman who died in the alms-house, and measured eight centimetres in length by four and a half centimetres in thickness. There was no diploë in any portion of the specimen, and there was no indication whether the growth began in the periosteum or in thickness of the bone. It was nearly as solid as ivory.

GENERAL ENCEPHALOID SARCOMA.

Dr. Stimson also presented a number of specimens taken from the body of a man forty-three years of age, who died of extensive malignant disease. In March, 1878, a small tumor was removed from his right breast by operation, and was said to be cancer. Shortly after he entered the hospital complaining of indefinite pain, which was followed within a few weeks by complete paralysis of both lower extremities and incomplete paralysis of the upper extremities. He subsequently regained control of the upper extremities. About one month before death spontaneous fracture of the left femur occurred at the junction of the middle with the lower third. He had inconti-

nence of urine, and constipation, and also several convulsions.

At autopsy, the scar left after the operation upon the right breast was found soft and smooth. There was one enlarged gland in the corresponding axilla. The lungs were studded with nodules, varying in size from a pea to a hickory nut, of firm consistence, gray in color, and there were a few vascular streaks running through them. They furnished, upon scraping and pressure, abundant milky juice. The heart, liver, and spleen were normal. One kidney contained two, and the other three small nodules. The brain contained about ten nodules, varying in size, and some of them had undergone cystic degeneration. One nodule near the surface of the brain was about three-quarters of an inch in diameter, not adherent to the dura mater but firmly attached to the arachnoid and pia. The skull showed degeneration of the same character in three places; that is, the inner table had been absorbed and the diploë was occupied by a soft brownish mass which furnished the same milky juice by scraping. There was one large lump in the lumbar region upon the right side of the spine, and several nodules scattered along the spine. The spinal cord was not involved nor was there any thickening along the spinal canal. The upper four ribs upon the right side had given place to a mass of the same material; the bones having entirely disappeared. The three lower lumbar vertebræ had undergone the same degeneration. The intervertebral discs remained in large part unchanged. The same change had involved almost all of the right ilium. The head of the right femur had undergone the same degeneration. There was no inflammation of the joint, and the cartilage remained unaffected. The left femur at the seat of fracture showed that the bone had been absorbed by the same gray pinkish material originating in the medulla and spreading downwards, but not to any great extent upwards.

### INTRA-CAPSULAR FRACTURE OF THE NECK OF THE FEMUR.

Dr. Stimson also presented a specimen of intra-capsular fracture of the neck of the femur occurring in a man 61 years of age. He fell on the 7th of December, 1878, and immediately complained of inability to walk and of pain in the left hip. He was removed to the Hospital, and when Dr. Stimson saw him, two days afterwards, there was neither shortening, nor deformity, nor ecchymosis. Four days after the accident there was a slight amount of eversion and one-fourth of an inch shortening. When he next saw him, about seven weeks afterwards, there was shortening to the extent of two inches: at least the trochanter had ridden two inches above the ischio-iliac line. One peculiarity of the deformity was forcible adduction of the limb. At autopsy it was found that the fracture passed directly through the neck three-quarters of an inch from the bottom of the digital fossa.

He was told by the gentlemen who made the autopsy that the capsule was not open, that there was no ecchymosis outside, and a slight effusion inside of the joint.

Dr. Post remarked, the case of intra-capsular fracture was interesting in connection with the statement made by Sir Astley Cooper, that shortening was greater in intra-capsular than in extra-capsular fracture of the neck of the femur, and subsequently shown to be erroneous by Dr. Robert W. Smith, of Dublin. If a case was examined immediately after the fracture occurred the shortening was almost invariably greater in the extra-capsular than in the intra-capsular, except when there was impaction. In cases in which there was no impaction the minimum shortening in extra-capsular fracture was one inch, whereas the maximum shortening in cases of intra-capsular fracture was about one inch. In the specimen presented by Dr. Stimson there seemed to have been no shortening at the beginning, but a shortening of two inches at a later period.

Dr. Stimson remarked that two years ago he presented a specimen of intra-capsular fracture in which there was shortening of two and one-half inches two days after the accident occurred.

About two months ago he presented an almost pure extra-capsular fracture in which there was no shortening, and no deformity for nearly a month after the accident.

Dr. Howe thought the specimen referred to last by Dr. Stimson was not a fair case of extra-capsular fracture, because there was sufficient unbroken bone beyond the capsule to prevent any shortening for at least one or two days.

With reference to the specimen just presented by Dr. Stimson, he did not think it possible that two inches shortening could occur even in seven weeks, without rupture of the capsule in a case of intra-capsular fracture.

Dr. Stimson thought the anatomical relation of the parts would permit that amount of shortening without rupture of the capsule.

### SARCOMA OF THE CONJUNCTIVA—AMYLOID INFILTRATION AND DEGENERATION.

Dr. C. S. Bull presented a specimen of sarcoma of the conjunctiva which had undergone amyloid infiltration and degeneration.

The patient was a young girl, æt. 17, of robust health. The tumor began in September, 1878, by a small swelling at the outer angle of the right lower eyelid. This slowly increased in size, without any pain or signs of inflammatory action, until by its size it began to press upon the eye and occasion some inconvenience. There was considerable deformity by the bulging outwards of the lid, but the skin was freely movable over the growth, and the orbicular muscle unimpeded in its action. On everting the lid, which was done with some difficulty, there was seen a pale, irregularly quadrilateral growth, its long diameter corresponding with that of the lid, about seven-eighths inch long, one-half inch wide, and one-quarter inch thick, with an upper surface irregularly concave. The tumor was hard and resisting, apparently bloodless, could be moved, and seemed to be firmly attached at only one point to the external angle of the orbit. An incision was made along the ciliary margin of the lid, and the growth easily dissected out. The conjunctiva of the cul-de-sac was then dissected up in all directions, and its edge brought forward and attached by sutures to the skin at the edge of the lid. The wound healed readily.

The growth on examination proved to be a sarcoma of the conjunctiva and tarsus, which had in part undergone amyloid degeneration. The epithelium in places was enormously thickened, and the sarcoma cells were of the small round character, with occasional fusiform cells and larger round cells with several nuclei. The mass of infiltration was towards the centre of the growth. The walls of the blood-vessels were also involved.

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Onychia Maligna.—The free application of bismuth subnitrate is highly recommended for the cure of *onychia maligna*.

## NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, Feb.* 20, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

### PANAX QUINQUEFOLIUM, THE CHINESE PANACEA.

DR. H. G. PIFFARD gave a brief account of the above remedy, and of the high estimation in which it was held by the Chinese.

It is the *ginseng* root, and is regarded by the Chinese as a cure for all human ills.

### SUPPLEMENTARY RECTAL ALIMENTATION, AND ESPECIALLY BY DEFIBRINATED BLOOD, AS APPLICABLE TO A LARGE NUMBER OF CASES FOR WHICH NUTRITIVE ENEMATA HAVE NOT HERETOFORE BEEN EMPLOYED.

DR. ANDREW H. SMITH read a paper upon the above subject, and gave the results obtained in eighty cases of different diseases in which rectal alimentation by means of defibrinated blood had been resorted to as an aid to stomach alimentation. At the present time there was scarcely any affection in which it was regarded as well to withhold what nourishment the stomach craved. Not only that, but disease was to be regarded as a burden which could be better thrown off by increasing than lowering the vital power, hence supporting instead of reducing treatment had been adopted, and the old antiphlogistic regimen had become a thing of the past. If it was accepted that the chances of recovery in the vast majority of cases were promoted by keeping nutrition as near as possible up to the normal standard, the question arose how could the object be best obtained? The most natural means were the best, so long as they were adapted to the indications. But if the stomach could not receive food and proper assimilation follow, it became necessary to resort to other methods of sustaining nutrition. A general reference was then made to the conditions which rendered it impossible to sustain nutrition by means of food introduced into the stomach, and special mention was made of the exhaustive paper upon the subject of Rectal Alimentation, read before the Academy by Prof. Austin Flint.

### ATONIC DYSPEPSIA—WEAK STOMACH.

DR. SMITH referred first to the treatment of cases which in popular language were known as cases of weak stomach, or atonic dyspepsia. There was a circle in that class of cases which might read atonic dyspepsia produced poverty of the blood, and poverty of the blood produced atonic dyspepsia. In many cases the blood was affected first, and the stomach secondarily, such as cases of severe hemorrhage, renal disease, etc.; and in many others the primary attack was upon the stomach, such as came from diseases affecting the organ itself, or organs intimately associated with the stomach, such as the liver, etc. In both classes of cases the need in nutrition could be supplied by *supplementary* rectal alimentation; use the rectal injections to supplement alimentation by the stomach. But just there the question might arise, if the stomach was to a great degree incapacitated for absorption by the *general condition* of the system, would not that incapacity also extend to the rectum? Dr. Smith answered the question in the negative. The stomach was the centre of reflex action; with the rectum it was different, and it suffered but little from reflex disturbance. For other reasons also he believed that the rectum would continue to absorb aliment long after the stomach had refused to perform its functions. Again, it might be asked d rectal alimentation do anything more than add much nutritive material to the blood; did it help restore to natural nutrition? If the innutrition pended upon causes which could not be removed, aid to the stomach must be continued, but if stomach was simply weak, rectal alimentation curative. Dr. Smith then referred to experime which he had made to prove that blood was read absorbed from the rectum. An enema of three four ounces of blood was completely absorbed wit eight or ten hours, and no trace could be found the following fæcal evacuation. When eight or ounces were injected, a portion remained, and peared in the fæces as a black mass. He belie that defibrinated blood was a fluid that was n nearly ready for absorption than any which had been used in rectal alimentation. The nearer substance used approached the character of blood, the less chance there was of imperfect con sion into blood. The quantities which he had u were from one to three ounces every two or th hours in acute cases, and in chronic cases from th to six ounces once or twice a day.

Reference was also made to experiments wh proved that a warm was more rapidly absorbed tha cold fluid; therefore, it was probably best to warm blood before injecting it. A small quantity of op might be added, to overcome the colic, which sometimes developed.

Asthenia was the prominent symptom in all the c in which he had resorted to rectal alimentation means of defibrinated blood. A large number cases of *pulmonary phthisis*. There was marked b fit in about one-half of the cases in which it was tr and the basis of the conclusion was the fact that t was immediate diminution of night-sweats, an provement in the appetite, a lessening of the co a better color to the face, and reviving strength. prompt improvement followed the use of the bl while the patient was taking tonics, cod-liver oil, it was fair to assume that such improvement was to the rectal alimentation. In all the cases of *si anæmia*, with a single exception, he had obtained cellent results. In *anæmia from malaria* he had the *bruit* and the venous hum disappear entirely wi two weeks after the beginning of injections of bl In cases of *dyspepsia*, whether atonic or depend upon gastritis, he had obtained good results. had also employed it in cases of *anæmia from hæ orrhage*, in *dyspeptic asthenia*, in *neuralgia*, and in *ner vous exhaustion*. Dr. Smith reached the conclusions

1st. That defibrinated blood was admirably adapted to sustaining nutrition by rectal alimentation.

2d. That from one to six ounces could be retained, and frequently a larger quantity could be used without very much trace of blood in the fæcal evacuations.

3d. That in about one-third of the cases it produces more or less constipation.

4th. That in a small proportion of cases constipation persisted and necessitated the discontinuance of the blood.

5th. That in a small percentage of cases irritability of the bowels attended its protracted use.

6th. That it was only an aid to stomach alimentation.

7th. That its use was indicated in cases in which asthenia was developed by disease not involving the large intestines.

8th. That in unfavorable cases it was capable of giving a favorable impulse to nutrition not obtained from other sources.

9th. That its use was entirely unattended by danger.

The paper being before the Academy for discussion,

Dr. Austin Flint remarked that it was of interest nd importance as one furnishing facts in two direcions: 1st. The class of cases to which rectal alimenation was appropriate, together with the amount of liance to be placed upon that form of alimentation i different affections; and 2d, the kind of diet hich was best suited for nourishment by the rectum. The author of the paper had brought facts which mt to show the value of the new form of rectal diet. r. Flint thought it very probable that different rms of diet would suit different cases; the same as stomach alimentation, and moreover it might be ill in the same case to vary the form of diet at difrent periods. He had not had any personal obsertion in the use of defibrinated blood as rectal food. ring the last two years, in Bellevue Hospital espeilly, he had seen rectal alimentation employed pretty gely, and could make the general statement that it d proved very satisfactory. The form of diet which d there generally been employed was milk and eggs, th the addition of a small quantity of spirits and ium.

Liebig had started with the assumption that the ge intestine had no power of digestion; that the gestion which took place there was always artiial; and therefore recommended a preparation hich was food brought, to a certain extent, through digestive process before introduction into the stum. Dr. Flint thought that view incorrect, and lieved the fact was, that digestion took place in the ge intestine. Reference was made to a case in llevue Hospital, in which symptoms were present at rendered it probable that there was carcinoma of e stomach. During the periods in which it had en impossible for the patient to take food by the omach, nutrition had been sustained by rectal alintation, and it was an interesting fact that after ctal alimentation had been continued for two or ree days the patient was able to again retain food on the stomach.

Dr. A. E. M. Purdy referred to four cases of *nerus anæmia* in which he had used the defibrinated ood with more benefit than any other form of rectal od that was employed. Milk, Leube's extract, etc., ere employed, but the most rapid and manifest imrovement came from the use of the blood. He ought the best results were obtained by using warm lood.

Dr. F. A. Castle referred to a case of atonic dysepsia, secondary to cerebral congestion, which had een under his observation nearly two months. For bout one-half of that time the patient, a female, æt. 3 years, had been sustained by rectal alimentation, nd defibrinated blood had for the most part been mployed. He had modified it somewhat by the adition of about one gramme of hydrate of chloral to quart of blood. No apparent change had taken lace in the appearance, consistency, and odor of the lood by that addition, nor had decomposition taken lace. The tongue cleared up quickly under the inluence of the rectal alimentation, and there was a narked improvement in the patient's general condiion, which he attributed partly to the nutritious nema and partly to a change of air and location. At first the injections were thrown up as high as possible, but subsequently they were thrown in with a syringe having a short nozzle, and the effect was equally favorable. He warmed the blood to 105° F. Dr. Castle expressed the opinion that the plasma of the blood was the portion which was most serviceable, presuming, from the tarry appearance of the passages, that the corpuscles had remained unabsorbed. The plasma contained albuminose which was readily taken up by an animal membrane, and, if that was the important element in the blood, it was reasonable to exercise care with regard to the condition of the animal when slaughtered. If the animal had not had a full supply of food before it was slaughtered, the quantity of albuminose in the blood-plasma would be considerably diminished; whereas, if the animal had taken a full meal several hours before being slaughtered, the blood-plasma would be rich in albuminose, the probable important element.

Dr. H. G. Piffard remarked that the blood of cattle did not contain the amount of albuminose with which it had been accredited. Their food was mainly vegetable, and vegetable food being composed mainly of cellulose and starch, neither of which were nitrogenous, nor could be changed into albuminose, the consequence was the serum could not contain very much albuminose. Again, the serum of the blood was simply a menstruum, first for conveying nutritious products to the tissues, and second, for carrying away the poisonous products of disassimilation. The serum containing all the products of decomposition of the tissues, products which, if retained, were certainly harmful to the animal, probably was harmful when introduced into another animal. It seemed to him hardly possible that urea, uric acid, creatine, creatinine, etc., the products of disassimilation, of death, could be regarded as useful alimentary agents. Almost the only constituents of the blood which could be regarded as possessing any special nutritive value were the blood-corpuscles. The corpuscles did not contain the products of decomposition, and if they were separated, would probably be of greater value as a nutritive agent than the corpuscles plus the serum. The separation of the corpuscles from the serum was not difficult, and Dr. Piffard thought comparative experiments should be made for the purpose of determining which of the two, the serum or the corpuscles, was the better nutritive agent.

Dr. Smith, in closing the discussion, remarked, he had no doubt Dr. Flint was correct in his opinion that a certain amount of digestion took place in the rectum. He had examined the dejecta in a few cases microscopically, and had failed to find any considerable number of blood-corpuscles that had not been broken down into a homogeneous mass of granular material. Thinking that it was nothing more than the temperature of the body that had produced the change, he subjected defibrinated blood to the temperature of the body, and found at the end of ten or twelve hours that the blood corpuscles remained unchanged. Hence the conclusion that the change produced in the rectum was something more than that due to temperature, and probably it was due to a digestive process.

With reference to Dr. Piffard's objection, Dr. Smith thought there was considerable vegetable albumen in food taken by cattle, especially if roots were fed, and that the vegetable albumen could be converted into a kind of albuminose. So far as excrementitious material in the serum of the blood was concerned, Dr. Smith thought there was not a great quantity present at any one time in a healthy animal, inasmuch as it was constantly being thrown off by the intestines, the kidneys, and the skin, and if the quantity present would harm the animal to which it was given it would harm the animal from which it was taken.

With the view to determine what the effect of rectal alimentation would be upon a healthy person,

whether or not it would diminish the desire for food, Dr. Smith had experimented upon himself, using four ounces of difibrinated blood as an enema at night. The first morning after using an injection, there was diminution in appetite, and for two days the injections gave him some inconvenience, but after that time he was not conscious that anything unusual had occurred, and, if anything, his appetite was improved. At the end of six days he found that he had gained in weight one pound, and he believed the gain was not accidental. The principal superiority which the rectum possessed over the stomach as an avenue through which nutriment could be introduced was the diminished liability to be affected by disturbing influences.

The Academy then adjourned.

## OBSTETRIC SECTION.

*Stated Meeting, February* 27, 1879.

DR. SALVATORE CARO, CHAIRMAN.

### CAULOPHYLLUM IN THE LATTER MONTHS OF PREGNANCY.

DR. SELL referred to additional cases, illustrating the beneficial effect of the concentrated extract of the root of the caulophyllum in controlling abdominal pain during the last months of pregnancy. He administered it in doses of from ten to twenty drops. He had found it useful for arresting threatening premature labor.

### DOES UTERO-GESTATION EVER EXTEND TO THE END OF THE TENTH MONTH?

DR. A. C. POST referred to a case in which there was very probably a deviation from the general rule, and pregnancy continued *ten* months. The woman was the mother of several children, and had always been able to calculate with great precision the time at which she would be confined. At the end of the ninth month labor pains came on, and preparations were made for the event, but the pains ceased and she went on a full month from that time, when she was delivered of a child, which weighed two pounds more than either of her previous children, and bore the marks of greater maturity.

DR. SELL remarked that conception sometimes occurred before and sometimes after menstruation, and the length of time between those dates might be nearly one month. That fact was to be taken into consideration in connection with seemingly long pregnancies, although he did not wish to be understood as saying that utero-gestation of *ten* months' duration could not occur.

DR. POST remarked that the law allowed a pregnancy extending to ten and a half months to be legitimate.

DR. CARO remarked it was the law in Italy and France that no woman was permitted to take a second husband until nine months had elapsed after the death of her first husband.

He thought it probable that every practitioner had met with cases which indicated unusual length of intra-uterine life. Reference was made to two cases, which gave the following history:

Two young women, sisters, were married. A few days after marriage each had her menstrual period, and then the menses ceased. They dated the commencement of utero-gestation from the last menstruation. Allowance was made for the length of time between the termination of one menstrual period and the beginning of another, and yet the length of utero-gestation was ten months. One of the women, at the end of the ninth month precisely, was taken with labor pains; the membranes ruptured and a large quantity of water escaped. The pains disappeared, and she went on for thirty-six days, when she was delivered by forceps of a female child.

In the second case, the conclusion was reached that the child was ten months old when born, making allowance for the fact that intra-uterine life was longer in breech than in vertex presentations. The child when born, weighed 13½ pounds, the sutures were solid, the fontanelles were nearly closed, and it was very vigorous.

The Section then adjourned.

# Correspondence.

## FULLER'S TABLETS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In a paper read by Dr. Robert M. Fuller before the New York Academy of Medicine, and published in THE MEDICAL RECORD, March 9, 1878, my attention was drawn to his mode of administering different medicines in tablet form. A short time later I obtained one of Dr. Fuller's plates, with the intention of trying it thoroughly. Practising medicine in a small city, where physicians carry with them in their daily rounds a pocket-case of "immediate remedies," the idea struck me as being one which would save much inconvenience, as well as secure accurate dosage. I accordingly entered into the manufacture of the tablets for my private use, and after a year's experience desire to offer some suggestions which have been learned by practice, and which may be useful to those who wish to avail themselves of this valuable contribution to our *armamentum medicum*.

Many of the instructions of Dr. Fuller have in my hands been found to be perfectly impracticable, and, if followed, might lead to an abandonment of this plan of dispensing.

His mode of saturation I have found unsatisfactory; for—1st. The medicament, in drying, appears to remain on the outside of the tablet, while within it is unaffected; 2d. Accurate saturation is impossible of accomplishment; for example, if required to medicate 50 tablets with 50 drops of a solution of atropine, $\frac{1}{60}$ of a grain to the drop, some will absorb more and some less of the solution.

A plate containing 50 holes 5 mm. in diameter and 3 mm. deep requires 60 grs. of cane-sugar and 55 grs. sugar of milk to make 50 tablets. This size of tablets is the most convenient. In the preparation of those to contain tinctures, as aconite, nux vomica, etc., I add to the sugar (and after thorough trial prefer cane-sugar to sugar of milk) the required quantity of the desired tincture. If, for example, each tablet is to contain 1 drop of Squibb's tincture of aconite, 50 drops are added to 60 grs. of sugar, and mixed intimately; adding alcohol of 95 per cent. if the mass is not sufficiently moist; allowing the excess to evaporate while stirring, if too wet. One hundred drops of the ordinary tinctures of the U. S. P. will moisten sufficiently 120 grs. of cane-sugar. Of course, any number of drops may be added, and any degree of strength given them, by using the desired amount of tincture, and allowing to evaporate to a proper consistency.

In the preparation of tablets to be medicated with the fluid extracts, a different course must be pursued. The necessary amount of the fluid extract should be thoroughly incorporated with the sugar, and there allowed to dry by spontaneous evaporation. Then reduce to a paste by the addition of alcohol, and proceed as before.

In all cases a bone or horn spatula should be used in spreading the mass upon the plate. Many of the salts that can be used in tablet form, as Hydg. bichlor., are so easily reduced, that an iron or steel spatula destroys them, besides making the tablets black and unsightly. Again, if a rubber plate is used, and glass is preferable, the crystals of sugar will cut into the plate, and, helped by the spatula, grind off little particles of the rubber, which give to the tablets a dusky appearance.

In the preparation of tablets composed of salts only, as muriate of ammonia, or chlorate of potash, the paste is much better made with water, and the addition of about 5 per cent. of pulv. acacia insures a finer pill, less liable to break down, and does not interfere with its solubility.

Masses which contain ingredients soluble in alcohol, as salicylate of soda, should be allowed to dry to the utmost extent consistent with a sufficient degree of softness for spreading. Otherwise the tablets will stick in the holes and to the punches, and it will be found impossible to remove them from the matrix.

Punching the tablets from the plate by a rounded stick, or by shaking, is theoretically good, but experience proves it laborious and unsatisfactory. Messrs. Shepard & Dudley have constructed a little machine which answers the purpose far better, and at the same time preserves to the tablet its form and beauty.

Of course, in all these manipulations, as well as in others of a like kind, a certain amount of dexterity is needed, which practice alone will secure; but when once gained, the practitioner will find the home manufacture exceedingly easy, and the use of these little tablets not only elegant and accurate, but attractive to his patients, especially children.

Alcohol of 95 per cent. is about the lowest percentage that can be used in making the mass. Water, except in the case of tablets composed of salts alone, cannot be employed, as it dissolves the sugar and makes the tablets sticky, and so diminishes the bulk that the mass cannot be accurately divided on the plate.

In dispensing, a little cotton should be placed over the pills before putting on the cover of the box.

In making the tablets attention must be paid to the bulk of the material used. For instance, in making tablets containing ¼ gr. of morphine sulph., 100 gr. of sugar, and 12½ gr. morphine will make 100 pills, the bulk of morphine being greater than sugar.

I lay these suggestions before you, believing that they will interest the profession, and with the sincere hope that a more intimate acquaintance with Dr. Fuller's method may induce practitioners to make a trial of it; feeling assured that when once tried, it will not be abandoned for the more unreliable sugar and other "coated" pills.

Respectfully yours,

H. L. S.

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CHLORAL AS A VESICANT.—Mixed with gum tragacanth into a mass and spread on paper, it produces a blister without pain when applied to the skin. It, by the absorption of a portion, causes the patient to fall asleep during its application. Its action is mild, though not as uniform as cantharides.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 15 to March 22, 1879.*

ROSSON, R. L., 1st Lieut. and Asst. Surgeon. Dismissed from the service of the U. S., to take effect March 22, 1879. G. O. M. O. No. 13, A. G. O., Feb. 25, 1879.

# Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.— Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending March 22, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| Mar. 15, 1879. | 0 | 7 | 215 | 1 | 17 | 39 | 0 | 0 |
| Mar. 22, 1879. | 0 | 5 | 179 | 1 | 5 | 36 | 0 | 0 |

TAPE-WORM IN CUCUMBERS.—At a late meeting of the Academy of Sciences of Philadelphia, Prof. Dr. Leidy exhibited a specimen of tape-worm found within a large cucumber. This specimen was a true tape-worm, but of an unknown species, the ovaries being confined to the anterior extremity.

CARBONIC ACID GAS.—Wet pepper, it would seem, is a powerful generator of carbonic acid gas. An English vessel had a large quantity aboard, a part having become wet by rain. The next day a Chinaman went into the hold and fell senseless. Four sailors, on going to his rescue, likewise became insensible. After ventilation of the hold, all five persons were found dead.

FROZEN SECTIONS OF A CAT.—At the meeting of the Cornell Philosophical Society, at Ithaca, N. Y., Feb. 8th, Prof. B. G. Wilder showed some frozen sections of a cat recently prepared with the aid of Mr. S. H. Gage. The cat was killed with chloroform, and injected with red and blue plaster so prepared as to remain hard in alcohol. (See Mr. Gage's paper on the use of plaster for injections in the *American Naturalist* for Nov., 1878.) The cat was then supported in a natural position, with hay, and frozen solid. The sections were made with a fine saw and at intervals of one ctm. Each section was immediately cleaned and placed in strong alcohol. The position of the viscera and injected vessels is perfectly shown, and the preparations are permanent.

THE SUCCESSOR TO THE LATE JOHN B. BIDDLE, M.D., IN THE CHAIR OF MATERIA MEDICA AND THERAPEUTICS IN JEFFERSON MEDICAL COLLEGE.—The Trustees of Jefferson Medical College, at a meeting held in their rooms in the College Hospital in Philadelphia, on Tuesday evening March 18th, elected Robert Bartholow, M.D., Professor of the Theory and Practice of Medicine and of General Therapeutics in the Cincinnati Medical College, successor to the late John B. Biddle, M.D. The other candidates for the position were Drs. J. Solis Cohen, John L. Ludlow, James C. Wilson, Henry Hartshorne, John C. Reese, and

Lawrence Turnbull, of Philadelphia; Robert Bolling, of Chestnut Hill; James Darrach, of Germantown, and W. C. Reiter, of Pittsburgh, Pa. The election was very closely contested, Dr. Bartholow not receiving the necessary number of votes until the fifth ballot. The Trustees, at the same meeting, declared the Chair of Demonstrator of Anatomy in the college vacant, resolving that in future the demonstratorship of anatomy should be filled by the vote of the Trustees and not by that of the Faculty. The former incumbent was Dr. Thomas H. Andrews. The applicants for the new appointment are Drs. Henry C. Chapman, J. Ewing Mears, and W. W. Keen.

A STRANGE FACT.—Some fifteen years ago a workman of Marseilles lost his only child. In despair at his loss, he cut off one hand of the child and preserved it as a precious souvenir in a jar of alcohol. One month ago the man's wife was confined a second time, and gave birth to a healthy boy. Strange to say, the child had but one hand; the hand that was wanting corresponded to the amputated hand in the jar.

HYPODERMIC INJECTIONS OF MORPHINE FOR AFTER-PAINS.—Dr. Ernoul recommends the employment of hypodermic injections of morphine, when the after-pains are exceptionally violent and obstinate. He injects ½ of a grain of the hydrochlorate in the hypogastric or iliac region, at the point where the pain is felt with most intensity, and repeats the injection, if necessary, two or three times in the twenty-four hours. —*Gazette Obstétricale.*

PERCHLORIDE OF IRON TOPICALLY TO CHANCRES.—M. Rollet recommends:

℞. Ferri perchloridi, Acid. hydrochlor.,
Acid citrici ää..... ʒ i.
Aquæ destil..... f. ℥ i.
M. Apply on limb.

PRURITUS VULVÆ.—Dr. Mendenhall recommends (*Obstetric Gazette*, Dec., 1878):

℞. Sodæ biborat..... ʒ i.
Plumbi acetat..... ʒ ss.
Tr. opii..... f ʒ j.
Aquæ destil..... f ℥ viij.

M. Sig.—Soak cloths in the solution and lay them upon the external parts affected, between the labia, etc. Keep the cloths freely wetted. Inject one ounce of the solution into the vagina several times a day. When the pruritus has been subdued, apply a solution of carbolic acid in glycerine (gtt. xx. to f ʒ i.) once or twice daily.

ERGOTINE HYPODERMICS IN EPISTAXIS.—Dr. Porak (*La Tribune Médicale*) cites three cases of obstinate nasal hemorrhage, each of which was promptly arrested by a single hypodermic of ergotine. His formula was: Bonjean's ergotine, 2,000 gmm.; Glycerine, 30,000 gmm. M. 20 drops hypodermically in the lip or cheek.

LEPROSY.—Chaulmoogra oil, obtained from the *gynocardia odorata*, has been used with much success in India in leprosy, tinea, herpes, scrofula, and rheumatism. It is officinal in the Pharmacopœia of India. There is an ointment; there are, also, *perles*, each containing four minims. Both are prepared by Messrs. Corbyn, Stacey & Co., of London, England.

TO MAKE POULTICES.—Dr. T. Lauder-Brunton says ("Brain"), the proper way to make and apply poultices is the following: Make a flannel bag the size of the required poultice. Fill the bag with the linseed poultice made as hot as possible, and place between this and the skin a piece of flannel doubled. Over the poultice wrap more flannel or cotton-batting.

POISONING BY OIL OF CHENOPODIUM.—A very interesting and novel case of "Poisoning by Oil of Chenopodium" is reported by Prof. Dr. Thomas R. Brown in the November number of the *Maryland Medical Journal*. One ounce and a half proved fatal *five days after* ingestion, profound coma and a very high axillary temperature attending. This article will bear careful perusal, since no works on materia medica or forensic medicine detail any fatal case of poisoning from this drug.

COD-LIVER OIL EMULSION.—℞. Cod-liver oil, f ℥ iv.; Glycerine and sherry wine, ää f ℥ ij.; Hog's pepsine, ʒ iss.; Dil. muriat. acid, f ʒ j.; Sodium chloride, ʒ ij. Agitate the oil with the glycerine, and add the wine and pepsine, previously mixed, shaking all well together; then add the acid and salt. This is claimed as palatable, being slightly acid.—*Med. Press and Circular.*

TREATMENT OF CHRONIC ALCOHOLISM.—Dr. d'Ancona, of Italy, gives gr. iss. of zinc phosphide (in divided doses) daily for many weeks with not only impunity, but with decided benefit to drinkers. He claims phosphorus gives the same comfort, strength, and force as is usually derived from the accustomed potations, and produces beneficial changes in the system even when the use of liquor has not been entirely discontinued.

CODE OF ETHICS.—Prof. Dr. H. M. Lyman, of Chicago, has made some very pertinent and able commentaries upon "The Code of Medical Ethics" in the November number of the *Chicago Med. Jour. and Exam.* He writes in a very happy vein, and fully exposes much of the absurdity contained in the "Code." We recommend our readers, and the guardians of the "Code" as well, to peruse and digest this paper.

## BOOKS RECEIVED.

TRANSACTIONS AMERICAN MEDICAL ASSOCIATION. Vol. XXIX., 1878.

FASTING GIRLS, THEIR PHYSIOLOGY AND PATHOLOGY. By W. A. HAMMOND, M.D. G. P. Putnam's Sons. 1879.

EPITOME OF SKIN DISEASES, ETC. By TILBURY FOX, M.D., F.R.C.P., and T. C. FOX, M.B., B.A. Phila.: H. C. Lea, 1879.

TREATISE ON DISEASES OF INFANCY AND CHILDHOOD. By J. LEWIS SMITH, M.D. Fourth Edition. Phila. H. C. Lea, 1879.

LECTURES ON PRACTICAL SURGERY. By H. H. TOLAND, M.D. Second Edition. Phila.: Lindsay & Blakiston. 1879.

AIDS TO FAMILY GOVERNMENT. By BERTHA MEYER, translated by M. L. HOLBROOK, M.D., and Essay on Rights of Children, by Herbert Spencer. New York: M. L. Holbrook & Co., 1879.

ATLAS OF SKIN DISEASES. By LOUIS A. DUHRING, M.D. Part V. Phila.: J. B. Lippincott & Co., 1879.

THE PRINCIPLES AND PRACTICE OF GYNÆCOLOGY. By THOMAS ADDIS EMMET, M.D. Phila.: H. C. Lea, 1879.

THE BRAIN AND ITS DISEASES. Vol. I., Syphilis of the Brain. By THOMAS STRETCH DOWSE, M.D., London: Baillière, Tindall & Co., 1879.

# Original Lectures.

## A CLINICAL LECTURE DELIVERED AT THE PENNSYLVANIA HOSPITAL, PHILADELPHIA.

By J. M. DA COSTA, M.D.,

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE IN JEFFERSON MEDICAL COLLEGE.

(Reported for THE MEDICAL RECORD.)

I.—MULTIPLE SPINAL SCLEROSIS.

II.—VOMITING AS A SYMPTOM IN GASTRIC DISEASE.

J. B., æt. forty-five, a watchmaker by trade. His father died at the ripe age of ninety. All the members of his immediate family have been long-lived. The patient states that, with the single exception of some bleeding piles, which troubled him eight years or so ago, he has always been a perfectly healthy man. He denies that he ever contracted venereal disease. About five years ago he travelled around the country a great deal with a horse and wagon. During this time he was very much exposed to vicissitudes of weather. At first he did not suffer at all from this exposure, but some three years ago he began to have occasional pains in the calves of his legs. These cramps gradually became more marked, a sensation of numbness affecting first one and then both legs. Finally, not limited to the legs alone, it attacked three fingers of his left hand. About this time there was some difficulty in retaining his water. It dribbled away all the time. The piles, too, returned again, and were a source of great annoyance to him. These were the symptoms from which he suffered three years ago. Two years ago his feet became very clumsy and unmanageable, turned under him very often, so that he stumbled frequently, and he sometimes seemed to be entirely unable to control the motions of his legs. He frequently fell in getting out of his wagon. There were now and then sharp twinges of pain in his legs, lasting ten or fifteen minutes. This pain never kept him awake at nights; occasionally the pain was accompanied by twitchings in the legs.

It was at this time, also, that he first became cognizant of a feeling of tightness around his waist, as if of a belt. He would frequently loosen his clothes, and take medicine to relieve this sense of constriction, which he supposed was caused by flatulence.

During all this time he had no headache and no pain in his head. His eyesight, however, became very poor, and he had numerous spells of passing giddiness. Eighteen months ago he had the piles removed by an operation, but without the least benefit accruing to him. The incontinence of urine grew more marked, and he finally was admitted here for this disease. After he was admitted we found that the incontinence of urine was only a small part of his malady.

He can now only walk with the help of crutches. If you will look at his legs, you will see that there is much atrophy. The left leg is more atrophied than the right. There is a good deal of congestion of the superficial veins on both legs. When I pinch his feet, or when I use a pin on the dorsum or sole, he scarcely notices it.

The reflex movements are not quite abolished, as a slight movement takes place. The muscular sense is much diminished. The legs, though not quite paralyzed, can only be very imperfectly managed. By this I mean that the control of muscular motion is greatly disturbed.

The sensation of touch is diminished in both of the arms. The grasp of both hands is feeble. He can pick up small objects, but cannot thread a needle. The power of co-ordinated movement, however, is not nearly as much destroyed in the arms as in the legs. Under the use of a slowly interrupted current, the muscles of both legs quiver, but it requires a very strong current to make them move. The man does not *feel* any current. We are thus shown that the electro-muscular sensibility is entirely destroyed. Trying a quickly interrupted current, we find that its effects are but slight, but a mere quiver of the muscles being apparent. The rectus on the right side only moves under the influence of a very strong current. The same is the case on the left leg and thigh. In the right arm the muscular motion is still good. The muscular contractility of the arms is not altered on the right side, and but slightly impaired on the left. The electro-muscular sensibility of the arms is preserved completely.

In summing up the clinical history, I would call particular attention to the muscular quivering entirely irrespective of the action of the battery. There is no albumen in the urine, a perfectly healthy eye-ground, and no disease of the heart. The disease has attacked the posterior and lateral columns of the cord much more than the anterior, though even these are not intact. The absence of tremors proves that the motor ganglia at the base of the brain are altogether free from disease; I have no doubt that the disease originally started in congestion of the spinal cord, or in congestion with some spinal meningitis.

The treatment has consisted in doses of the one-thirtieth of a grain of the bichloride of mercury given thrice daily. Now he bears as much as the one-fifteenth of a grain. Occasionally of late strychnia has been employed.

In discussing the case, I have first to inform you that it is undoubtedly one of multiple spinal sclerosis. This sclerosis has affected more particularly the antero-lateral and posterior parts of the cord. It is not limited to the lower part of the cord, for there must also be points of sclerotic disease in the upper cord, though the disease is less marked there. This sclerosis in process of time is connected with an increase of the fibrous tissue and a corresponding atrophy of nervous structure. This process most likely will gradually invade the brain, and what is now multiple-spinal will in time become multiple-cerebro-spinal sclerosis. When it does, a new train of symptoms will develop, which we need not now discuss.

The reason that I thus mention the probable future of the condition is to call your attention to the fact that the arms are already slightly affected, and that, what I have not yet told you, there is an increasing feeling of numbness about the lips and some little want of power there. In the tongue, too, there is a certain failure of the power of motion and disorder of sensation. This looks as if the disease had already affected points in the neighborhood of the medulla, those affected in what is known as bulbar paralysis.

To return, however, to our consideration of the spinal disorder. We know that the posterior columns are affected from the disorders of sensation—the slight impression produced by running a needle into the sole of the foot, the lack of susceptibility to the electro-muscular current—all these are evidence enough that the posterior column is affected, just as in tabes dorsalis or locomotor ataxia. Having seen cases of locomotor ataxia, the symptoms are not strange to you. When in addition to the impairment of sensation the muscular force is also markedly impaired, we know

that the disease has also affected the anterior columns. Here, however, the muscular power of the legs is not gone, for the patient, although he cannot walk, can kick with vigor. The fact that the strong current will not cause the muscles to move shows that the anterior column is also impaired. In ordinary locomotor ataxia the electro-muscular contractility is not impaired, or but very slightly. Here, however, this impairment is so marked that the muscles will not respond to any current except to one which is slowly interrupted. In the absence of power and of electro-muscular contractility we know that the anterior columns must be affected.

It would lead me too far to revert to the origin of the disease. My belief is that the condition originally started in a slow form of congestion and of infiltration, which lead to the development of an excess of fibrous tissue and to atrophy.

While in this connection, let me also remark that in the slow, gradual beginning and in the want of muscular atrophy, we find the distinction between this disease and polio-myelitis. There is no marked atrophy here. In polio-myelitis trophic changes take place.

The treatment, as I have already told you, has consisted in the use of corrosive sublimate, which is the best alterative where structural changes exist, and which should be pushed until some effect is shown. It may be given for months at a time. At the same time electricity is being used as a muscular tonic and the muscles are kneaded every day. We depend entirely upon the corrosive sublimate, however, to effect real improvement. Where the disease has not progressed so far as it seems to have done here, I have seen marked benefit follow its use. However, I doubt exceedingly whether it will do good here. Small doses of strychnia are given as a general tonic. The strychnia will not, of itself, have the effect which we expect from the bichloride. Iodide of potassium I shall hold in reserve. I prefer the bichloride to it.

The primary electric current is employed here three times during the week. The continuous current does not afford by any means such good results as are obtained by the interrupted current.

### TWO INTERESTING CASES OF VOMITING.

I want to say a few words to you regarding vomiting as a symptom in gastric disease.

Case I.—Æt. twenty-five. Family history not good. Sister and father both died of phthisis. She herself was always healthy. Began to menstruate at age of seventeen and stopped menstruating at twenty. Since then the menses have been very irregular. She married at the age of eighteen and was a widow at twenty-one. You will, therefore, notice that the irregularity of menstruation has existed not only during marriage, but also before and since.

She comes into the hospital for the treatment of what is apparently a very serious difficulty, viz.: she has been vomiting constantly for nearly a year. She has been in the hospital for only a week. She has been vomiting incessantly; has never retained more than one meal during the course of the day for the past year. The vomiting always begins the instant after her meal is over. She does not have much vomiting or nausea between her meals.

A year ago she was stout and healthy, but the vomiting has rendered her thin and pale. Though not so this morning, it is fair to state that she has picked up wonderfully within the last few days, and you will, no doubt, want to know what has been done.

In the first place, I had the vomited matter examined, with but negative results. There were no sarcinæ, nothing but mucus mixed with the contents of the stomach. Occasionally the patient has been disturbed by vomiting mucus in her sleep.

Together with the vomiting you notice that she has a slight, irritative cough. This cough has troubled her ever since the vomiting began. Joined with the cough there is no expectoration.

Before going any farther, however, I will examine the gastric and intestinal organs. Her tongue is slightly coated and flabby, and there is some tenderness in the epigastric region and along the spine, particularly at about the middle point of the spine. There is, however, no appearance of a tumor. The soreness in the epigastrium is general, and is not localized in particular spots. The bowels are constipated; the respiratory sounds are normal. There is no albumen or abnormal ingredient in the urine. There is no fever, and the temperature is normal. The urine is acid and of the usual color, with a specific gravity of 1025.

What has been the cause of the vomiting? What remedy is it which has stopped the vomiting in three days?

When I first saw the woman in the wards and heard of the incessant vomiting, I first thought it was a case of irritable stomach in a young woman, connected with gastric ulcer. The epigastric soreness, the age of the patient, the appearance of the tongue, the disordered menstruation, the sore point in the spine, all tended in that direction.

I soon gave up the idea, however. Gastric ulcer gives rise to local soreness; here the soreness was general. Gastric ulcer is attended by hemorrhage and pain upon taking food, which was not the case here. The two most prominent symptoms of ulceration were absent. I rejected the idea.

Then there came up a point of experience in my mind—one case similar had happened not long since in my own practice, several I had seen in consultation. In one case the vomiting had reduced the patient almost to the verge of the grave; nothing stayed on her stomach. In her case, the irritation was reflected upon the stomach from a uterine malady—a slight flexion. It was not very different from the sympathetic vomiting of pregnancy. Moreover, there was in that case a certain amount of gastric disease—a catarrhal affection of the stomach came on as a complication of the nervous affection. In the light of that experience I began to suspect the same condition here. As a result of examination we found retroflexion of the uterus. The whole case was cleared up at once. It was reflex vomiting with a certain amount of gastric catarrh, lasting for a year, although the woman had taken the greatest care with her diet, etc.

When she was first admitted she was put upon lime-water and milk, but there was no effect produced upon the vomiting. How did we check it? It was not by diet alone.

Again experience came to my assistance, and I determined to try the application of ice to the spine as a systematic treatment, every few hours. The ice was applied and left on until it chilled the patient and made her skin cold. The application was often repeated—as often as she could bear it. Its effects were admirable. No other treatment was necessary. The vomiting stopped almost at once.

You will not always be so successful with this remedy alone. Is there nothing which we can combine with the ice—must we depend upon it alone? By no means. Bromide of sodium in doses of ten or fifteen grains thrice daily is very effectual. It lessens the reflex irritation, and is not rejected by the stomach.

An occasional purge by an enema, or some bitter-water, is often desirable. Subsequently, if the case lingers, use blisters to the spine. Do all this irrespective of the local uterine treatment, for the reduction of the uterine displacement will not always stop the vomiting at once—the cause is removed, but not the habit.

To-day I shall introduce a pessary. Already the girl's diet has been increased, and she is beginning to retain solid food.

What else can we use in such cases to soothe the stomach? Pepsin is very valuable as soon as the vomiting has been stopped. The dose of saccharated pepsin is five grains thrice daily. The diet all this while should be gradually increased; only small quantities of food being given, but these frequently.

This condition is very similar to hysterical vomiting. There is no manifestation of hysteria here. The two states are parallel, but not identical. In an hysterical case, the results of treatment would not be so good.

CASE II.—Æt. fifty-five, single, comes of healthy family. Her own health has not been bad considering her age and occupation, that of cook. She has suffered from dyspepsia for a long time, together with flatulence and constipation. She is also a sufferer from sick headache, and from a certain amount of pain in her stomach.

Some time after these symptoms appeared, her abdomen began to swell and became painful. She vomited; on two occasions vomited blood. Her general health at the same time has failed, and she has lost flesh, and is, as you see, very pale and anæmic. This morning she vomited blood for the third time.

The treatment shall be based (1) upon the hæmatemesis, and (2) upon the general gastric symptoms. Since she has been in the hospital she has vomited every day. Attending this vomiting there has been a burning pain in her stomach. This pain is not always increased by taking food, and often existed apart from the hours of her meals.

The vomit, a specimen of which I here show you, consists of black coagula—coffee-grounds—the usual character of the vomit of cases of hæmatemesis. The attack of vomiting which she had this morning has rendered her pale and weak.

The disease is plainly shown by the character of the vomit to be situated in the stomach; is probably gastric ulcer.

Her temperature has risen to 100°, her pulse is feeble and compressible, there is general soreness over the epigastric region, the tongue is dry and but slightly coated. The woman is scarcely in a condition for me to attempt an accurate and minute examination and diagnosis. When the gastric hemorrhage is over, it will be very easy to make out the gastric condition; indeed, I have already told you what I believe it to be.

As regards the treatment of the hæmatemesis, the most effectual remedy is the hypodermic injection of ℥x. of the fluid extract of ergot the minute that the bleeding begins. This injection should be repeated if the least symptom of return of hemorrhage appears. We shall keep up this woman's strength by means of such food as eggs, milk, beef-tea, etc., by enema. If there be any sign of heart-failure, brandy is, of course, necessary by enema. Lastly, I shall order several small blisters to be placed over the epigastrium. In this way you see that we are treating and nourishing the patient without putting a drop of anything in her stomach. Should this treatment not be successful, I should order ℥x. of turpentine and gr. $\frac{1}{4}$ of morphia in emulsion, by the mouth, every third hour.

# Original Communications.

## FURTHER CONTRIBUTIONS TO THE TREATMENT OF LUPUS.

BY HENRY G. PIFFARD, M.D.,

PROFESSOR OF DERMATOLOGY UNIVERSITY MEDICAL COLLEGE, NEW YORK, SURGEON TO CHARITY HOSPITAL, ETC.

Read before the Medical Society of the State of New York, Feb. 4, 1879.

IT will be remembered that at the annual meeting of this Society in June, 1877, the writer had the honor of reading a paper entitled "Certain Points Relating to the Nature and Treatment of Lupus." The matters specially dwelt on at that time were the infectious character of the lesion, and the necessity *for thorough* and radical treatment if we wished to stay it ravages. Concerning these points I wrote as follows:

"We see, then, that one important peculiarity of lupus is the extreme viability of its cells. Another peculiarity is its gradual extension and involvement of new regions, by an apparently infective process, similar to, but less in degree than that manifested by cancer. In other words, lupus is an affection that presents a certain degree of malignity, varying in different cases, and always less marked than in true cancer. This infective quality is evidenced by the fact that, if a patch be incompletely destroyed, the disease will most certainly return.

"A consideration of these two points, namely, the extreme viability of the cells and their infective quality, gives us a clue to appropriate treatment. The indication is clearly to remove the infiltration as soon as possible, and to remove it thoroughly; to destroy, not nine-tenths or ninety-nine hundredths of the lupous cells, but *all* of them."

The paper from which these extracts are taken was published in the MEDICAL RECORD, July 21, 1877, and subsequently in the Transactions of this Society for that year.

In the *Medical Times and Gazette* for August 4, 1877, there appeared an article by Mr. Jonathan Hutchinson, of London, entitled, "On the Mode in which Lupus Spreads," which commences as follows:

"The mode in which lupus extends itself, and more especially the manner in which multiple patches are developed, is well worthy of investigation. My impression is that the processes are by cell-infection, and very similar to what we observe in cancer."

Farther on he says: "You will see that the correctness or incorrectness of this theory is of considerable importance—as, indeed, all theories are—in its bearing upon practice. If lupus be, as I hold it is, an infective tissue malady rather than a blood disease, we have a strong additional reason for vigor in the use of those methods of treatment which are likely to eradicate its first local manifestations. We apply to it the same rule that we so constantly reiterate in reference to cancer. 'Stamp out the very first indication of flame, in order to prevent the spread of the fire.'"

The remarkable similarity of the views expressed by Mr. Hutchinson, and those which I had previously laid before you, strengthens me in the belief that they are in the main correct, and that a full appreciation of their importance will in the future lead to more thorough and successful treatment of this serious affection. Before entering into further details it may be well

to indicate just what we desire to accomplish in the treatment of lupus.

In the first place, we seek to replace the lesion by a cicatrix.

In the second, to prevent a relapse *in situ*.

In the third, to prevent the development of the disease elsewhere.

The fulfilment of the first of these indications is a comparatively easy task, and one that may be effected in a number of ways. Without considering all the methods proposed, or even those which give fairly good results, I will simply recall to your recollection the ones to which I gave the preference in my previous paper.

These are: 1. To excise the lesion, when suitably located; 2. When this is not practicable, to thoroughly scrape out the lupous tissue with the dermal curette, and then cauterize the wound with the galvanic or other actual cautery.

One or other of these means will certainly cure the lesion (temporarily at least) more quickly and less painfully than any method yet proposed.

As regards the second indication—to prevent a relapse *in situ*—it is clear that the more thoroughly the operation is performed the greater the probability of permanent success.

In these cases there is but one consideration that should stay the surgeon's hand, and this is the amount of deformity that will result from the operation itself. Manifestly it would not be proper to remove half the cheek to cure a lupus half an inch in diameter. On the other hand, if not enough of the *apparently* healthy surrounding tissue is removed a relapse is inevitable. The problem is to destroy just enough and not too much, a matter that cannot always be determined with precision in advance of the operation. In my former paper I gave a table of results obtained in the treatment of twenty-five lesions by different methods. These were:

| | Successful. | Unsuccessful. |
|---|---|---|
| Excision | 6 | 2 |
| Excision and actual cautery | 1 | 0 |
| Scraping and actual cautery | 4 | 0 |
| Total | 11 | 2 |
| By other methods | 5 | 7 |

These results were certainly calculated to inspire me with a good deal of confidence in the methods advocated, and the cases hereafter to be related will show that in their practical application they almost, if not quite, fulfil their early promise. I feel loath to recite the cases in detail, and would not do so were it not that they proved exceedingly instructive, and will probably enable me in the future to obviate some avoidable causes of failure, and may, for a like reason, prove profitable to you. The cases referred to in my previous paper were numbered from one to ten, and the ones now to be related will follow them in the order of occurrence, with the exception of Case IX., which belongs to the last series, and was then reported as being still under treatment.

Case IX.—Frank W., a native of the United States, thirty-six years of age, and a seaman by occupation, came under treatment March 22, 1877. His disease commenced at the age of thirteen, by the appearance of the lesion near the inner end of the left eyebrow, from which it spread until it gradually invaded the portions shown in the photograph. It is of the erythematous variety, and involves the lower half of left side of the forehead, the left side of the nose, and the greater part of the left cheek above the angle of the mouth. A portion of the original lesion, directly under the eye and on the forehead, that is, the parts that look pale in the photograph, have already undergone spontaneous retrogressive changes, being smooth, pale, and slightly depressed. The remaining portion of the lesion is elevated and red, with a few fine scales, and is slowly advancing at its periphery. In the infiltrated portion the patient experiences a sensation of heat, worse when he bends down his head. Owing to the extent of the lesion I decided to attack it piecemeal, and on day of visit (March 22d) scraped out some of the peripheral parts and applied a saturated solution of chloride of zinc.

March 27.—The parts cauterized with zinc do not present the usual appearances after cauterization, the eschar being softer than usual, partially detached, and under it there is an unusual amount of pus. To-day scraped out some of the papules, at the exterior and inferior parts of the lesion, and touched the holes with the galvano-cautery at a white heat. The design of the present operations was first to eradicate the disease at the margins, and thus prevent the spread of the affection, and afterward attack the more central and older portions. Those parts which had already undergone spontaneous absorption and cicatrization required no special attention.

March 29.—A slight tendency to suppuration has shown itself about the parts cauterized. The sloughs caused by the zinc have mostly separated, leaving small suppurating ulcers. He says that the parts operated on feel more comfortable than those in which the lesion still exists.

April 1.—To-day, assisted by Dr. H. P. Farnham, removed by incision an elliptical piece from the forehead, extending from the upper part of the lesion to the root of the nose, the piece removed being about 15 mm. long by 7 mm. wide at its broadest part. Two ligatures were necessary to control hemorrhage. The wound was brought together with two silver sutures and dressed with a lotion of *calendula*. The actual cautery, without scraping, was passed around the margin of the entire lesion, except on the forehead. In addition the diseased surface within the margin received linear cauterizations. Gave him calcium sulphide, gr. $\frac{1}{10}$ *ter die*, in the hope of controlling the tendency to suppuration.

April 5.—There has been a great deal of suppuration and crusting upon the parts cauterized, but none at all along the line of incision which had been dressed with calendula. Removed one ligature, but did not disturb the other dressings.

The subsequent history of the case through the summer need not be detailed other than to state that the patient received two very thorough applications of the galvano-cautery to the diseased surface, without previous scraping. The great apparent change for the better will be seen by examination of the accompanying photographs taken June 9, 1877, and November 22d.

April 1, 1878.—Have not seen the patient for some months, but find him again on resuming charge of the Dermatological wards at the Charity Hospital. On examination find that some portions of the original lesion are thoroughly cicatrized and exhibit no tendency to relapse *in situ*. On the other hand the lesion has extended at other points of the periphery, and little papules are cropping out like islands beyond the edge of the main lesion. The patient's general condition is more depressed than I have before seen it, and the affection exhibits a more evident semi-malignancy than at any previous time.

During the succeeding three and a half months he

was subjected to repeated partial scrapings and applications of cautery, and at the end of this period was discharged, at his own request, in a very much better condition than at any previous period. He felt so much better that he was anxious to seek employment out of the Hospital. I do not consider him cured, but expect to encounter him again at some future time.

*Constitutional treatment.*—During the early periods of treatment he received cod-liver oil without apparent benefit. Phosphorus was tried, but even in very small doses disagreed and had to be stopped.

In 1878, arseniate of sodium, chloride of gold and sodium, and hydrocotyle asiatica appeared to be useful. (Illustrated with three photographs.)

Case XI.—Miss A. L., thirty-one years of age, referred to me by Dr. Giroux, of Brooklyn (E. D.). The disease commenced when she was seven years of age, and occupies a portion of the right cheek, as shown in the photograph (June 23, 1877).

July 2, 1877.—To-day, assisted by Drs. Giroux and G. H. Fox, scraped out the lupous tissue and applied the galvano-cautery to the wound.

July 18.—Her face is entirely healed and has been for some days, but there is a suspicious look to it. The skin is red, and there is a fine desquamation over the site of principal lesion. She says it feels the same as before the operation.

August 18.—Scraped out four small papules that have reappeared, and applied the cautery.

January 6, 1879.—Relapsed, as shown in the photograph taken to-day.

This case was a complete failure, the only one that has yet occurred to me after a second operation. (Illustrated by two photographs.)

Case XII.—Peter H., aged 19, referred to me by Dr. Geo. Bayles, of New York. Disease commenced in 1874, and now occupies both sides of lower half of nose and a large patch below right eye, which produced decided ectropion.

July 3, 1877.—To-day, assisted by Drs. Bayles, Fox and Goodwillie, scraped out the lupous tissue and applied the galvano-cautery.

July 4.—He says that the parts feel better than before the operation.

July 24.—Entirely healed.

August 15.—Looks well everywhere, except three small papules 1 mm. in diameter on left ala, and two hardly perceptible papules that look suspicious. There is also a little scaliness under the eye near the nose.

August 21.—Scraped out the papules referred to and cauterized, but the heat was not satisfactory and the burning inefficient.

May 4, 1878.—Have not seen him since last date until to-day, when I find that the disease has relapsed and is nearly as bad as ever. Operated again by scraping cautery and chloride of zinc.

June 21.—It has been healed for some time and is looking well. Takes chloride of gold and sodium, and arseniate of sodium, of each gr. $\frac{1}{100}$ *ter die.* (Two photographs.)

Case XIII.—G. W. G., aged sixty, referred to me by Dr. J. W. S. Gouley.

Dec. 21, 1877.—In 1862 a lesion appeared on his lip, diagnosticated lupus by the late Dr. John Biddle, of Philadelphia. This received two severe applications of chloride of zinc at the hands of Dr. Biddle, and has not returned. Fifteen months ago a similar lesion appeared on right ala nasi, diagnosticated by Drs. Bazin and Hardy in 1876 as lupus. It was then treated with Vienna paste and healed, but broke out again. In August, 1877, Dr. Lente of Saratoga applied a hot iron with good effect, but two other points of disease appeared near the old spots about two months ago. To-day, on examination, find an ulcerating lupus occupying a portion of the right ala nasi 1 cm. in diameter. It involves the whole thickness of the skin, and exposes the cartilage. It has also crept around this latter and invades the mucous membrane to a slight extent.

Dec. 22.—Assisted by Drs. Gouley and Fox, scraped the ulcer thoroughly and applied actual cautery.

Jan. 13, 1878.—Looking very well, and nearly healed.

Feb. 2—Entirely healed, and looking well.

Feb. 16.—No relapse. For the last two months has taken phos. gr. $\frac{1}{100}$ two or three times a day.

Some months later heard from the patient indirectly to the effect that there was no relapse of the disease. (Illustrated with diagram.)

Case XIV.—Maria M., aged thirty-two, referred to me Dec. 30, 1877, by Dr. O. S. Paine, of New York, for opinion.

The disease had commenced twelve years before by the appearance of a small spot between the eyebrows and spread centrifugally until it occupied the position and dimensions shown in the photograph. At present date spontaneous cicatrization has taken place in the older portions, but the peripheral portions on the left side of the nose are in part nodulated, in part ulcerated, and covered with crusts. Both eyelids of right side near inner canthus are occupied by nodules, that of the upper lid being the larger and ulcerated. There is also a small nodule near left inner canthus and between it and the nose. The diagnosis was lupus vulgaris. An operation was recommended. To this the patient would not consent.

May 24, 1878.—Since last date have not seen the patient until two days ago, except when she was exhibited one evening at a meeting of the New York Dermatological Society by another member. To-day, assisted by Drs. Paine, Mulford, and Alexander, I removed a portion of the growth near the right eye with the knife, and the other diseased portions by scraping. The whole was then cauterized, and finally deliquesced chloride of zinc was applied, and the parts dressed with absorbent cotton.

June 14.—All healed.

July 21.—Evidences of relapse.

July 30.—Removed with the knife a relapsed nodule near right eye, and applied chloride of zinc to the wound.

August 21.—All healed, and looking well. Subsequent to this date a small ulcer appeared at root of nose, and another one on the nose at lower portion of original lesion. These were not operated on, but healed while taking medicine.

January 2, 1879.—A fresh ulcer has appeared at root of nose. Internal treatment.

January 15.—Ulcer healed (illustrated with three photographs).

Case XV.—May 14, 1878.—Margaret W., aged sixty-six years. Twelve months ago a pimple appeared near left external canthus. This enlarged, and ulcerated in the centre. At present the lesion is about 15 mm. in diameter, and consists of a periphery of small nodules surrounding a central depression, covered with small adherent crust. Assisted by Dr. McMaster, excised the entire growth with some surrounding tissue. The connective tissue beneath the lesion appeared healthy, so no caustic was applied, but the wound closed with suture.

May 30.—Wound healed, and no trace of disease,

Nov. 26.—Exhibited at Dermatological Society. No signs of relapse.

Jan. 14, 1879.—No relapse. (Illustrated by diagram and photograph).

CASE XVI.—M. M., female, aged forty, referred to me March 9, 1877, by Dr. T. G. Thomas, of New York, gave the following history: The disease commenced four years before by the appearance, on the left side of the forehead, of a small papule. This increased in size, but did not ulcerate. At times it was covered with a fine scale, and was occasionally painful. Later another patch appeared midway between her right eye and ear, and, like the other, gradually increased in size. At present the lesion on the forehead consists in part of a depressed scar toward the median line, and a raised infiltration extending outwardly; the whole about 12 mm. in length. The other lesion is about 2 cm. in diameter, circular, with depressed centre, surrounded by a slightly raised infiltrated ring. Besides these the patient had a small lesion below left eye, one over right shoulder-blade, and one on right thigh. Ordered phosphorus, gr. $\frac{1}{100}$ *ter die.*

March 12.—Assisted by Dr. Fox, I scraped the lesions first mentioned, and applied the galvano-cautery. The lesion above right shoulder was dealt with in the same manner.

March 17.—Scraped the lesion under left eye, and applied chloride of zinc.

March 22.—The lesions scraped and cauterized on the 12th inst. entirely healed, and looking nicely.

April 19.—The spot beneath left eye healed, and exhibiting no sign of relapse; but the other three lesions have all relapsed, so to-day, assisted by Dr. H. P. Farnham, scraped them out very thoroughly and applied galvano-cautery.

June 20.—The lesions have all been healed for some time, but there has been a suspicious look about the one on the side of face. Of late, however, it has improved in appearance.

August 7.—No signs of relapse. Since last date she has been taking a preparation of gold, which she is to continue.

Sept. 15.—Has greatly improved in general health. No signs of relapse in any of the lesions treated, but a lesion has appeared during the last few weeks on lower lip that has a suspicious aspect. Internal treatment.

Oct. 5.—Possibly slight improvement. Continue internal treatment.

Nov. 23.—The tubercle on chin has entirely disappeared.

Dec. 1.—Appears to be well—placebo.

Dec. 14.—No evidence of relapse anywhere. Discontinue mediciue.

Jan. 25. 1879.—No relapse. (Two photographs).

CASE XVII.—Matthew M., aged 24, admitted into Charity Hospital Jan. 24, 1878, came under my care April 1, with verrucous lupus occupying a large part of dorsum of left hand, and extending upon the wrist and forearm, as shown in the photograph. Disease commenced two years and a half before. Internal treatment.

May 23.—A surface 5.5 × 4 cm. at distal portion of lesion scraped and cauterized. The entire lesion measured 10 × 6 cm.

June 24.—The cauterized portion is rapidly healing, having assumed a perfectly healthy granulating surface, surrounded by a broad cicatricial band.

June 27.—The remaining diseased surface scraped and cauterized.

July 15.—The part last cauterized is more elevated and of a deeper color than the rest.

July 25.—Five small grafts from healthy skin were inserted.

July 30.—Two of the grafts have taken, the others not. A small place on the part first cauterized looks suspiciously like a relapse, and is rescraped and cauterized.

Aug. 31.—Hand entirely healed except a small place about 1 cm. in diameter.

This was subsequently scraped and cauterized by Dr. Habirshaw, house-surgeon, and the patient was discharged from the Hospital in September with the hand entirely healed. (Illustrated by photograph.)

CASE XVIII.—Mrs. M. G., 60 years of age, referred to me by Dr. F. D. Lente, Oct. 31, 1878. Disease commenced between three and four years ago as a small pimple in the middle of the forehead. This increased in size and now measures 2 cm. in diameter. It has ulcerated at times and is now in part covered with a crust. The color of the edge is rather pale and waxy looking, but the limiting infiltration is well defined. Advised scraping and cautery.

Nov. 2.—Assisted by Dr. Beverley Robinson, I scraped out the lesion and applied galvano-cautery.

Dec. 16.—The ulcer left after the fall of the slough has proved, perhaps owing to her age, very indolent and slow in healing, but to-day is quite healed with firm cicatrix.

Jan. 13, 1879.—Site of lesion looking well; no signs of relapse.*

*Internal treatment.*—In addition to the surgical measures, all of the above cases received internal constitutional treatment. In my last paper I referred to the unsatisfactory results obtained from internal treatment alone; expressing at the time but little confidence in any medication, except perhaps the use of phosphorus, at the same time cautioning against its too free or indiscriminate use. With the present series of cases I have experimented quite freely with a number of additional agents, including gold, bromide of gold, chloride of gold and sodium, arsenious acid, bromide of arsenic, phosphorus, hydrocotyle asiatica, silicic acid, silicate of calcium and arseniate of calcium. Under the use of some of these the patient's health was benefited and the appearance of the lesions improved, but whether they contributed in any way to the prevention of relapse *in situ*, I am, of course, unable definitely to determine.

The present paper has already reached such length that the discussion of the third topic—the prevention of the development of the disease in parts other than those first attacked—must be deferred to another occasion.

*Conclusions.*—With the facts and evidence before you, each may draw such inductions and conclusions as may seem to you warranted. Those at which I have myself arrived, simply corroborate the ones expressed by me two years ago, and are as follows: When excision is impracticable, scraping followed by the actual cautery is the least painful of the radical operations that have been proposed, and cicatrization is most rapid. The resulting cicatrix is smooth and less disfiguring than that which follows spontaneous involution or the potential caustics. The success of the operation will depend on the thoroughness with which it is performed. If a relapse of the lesion occurs it may be expected within three months at latest, and if this period passes without return of the disease *in situ*, the only fear is its development elsewhere.

It is from constitutional treatment alone we

* March 13th.—No relapse.

can here expect success, and as I have seen small lesions, undoubtedly lupous in character, disappear during internal treatment, I am not without hope that much may yet be accomplished in this direction in the future.

## ON THE LOSS OF MEMORY IN CEREBRAL SOFTENING.

By HORATIO R. BIGELOW, M.D.,

WASHINGTON, D. C.

If we were in the habit of using words accurately in the discussion of scientific problems, much confusion would be avoided. Too frequently is it the case that authors, writing upon the same subject, will use as synonyms words of entirely distinct meaning, or else they will make use of separate or original technical terms in speaking of one and the same thing. Especially is precision necessary in the generalization from facts to theories. In all matters of physiological psychology, I make use of the phrase physiological pschology advisedly and fearlessly, since I am satisfied that all future inquiries regarding the psyche will be an induction from physiological tenets well established by actual demonstration or by the strongest evidences of probability. German transcendentalism is being relegated to a common oblivion with alchemy and astrology. The new system of metaphysics finds origin in the study of physiology, and philosophy must advance *pari passu* with self-knowledge. In the various text-books upon the theory and practice of medicine, as well as in monographs upon the special subject of brain lesions, it is stated as a symptom of cerebral softening—due to whatever cause—that there is a loss of memory of present events, but that the memory of past events is not impaired? No author has attempted any satisfactory explanation of the circumstance, yet with perfect accord they all make use of a word as indicative of a certain state or condition to which it cannot rightly be applied. In a psychological discussion, at least, if not from pathological evidences, a more just comprehension of synonyms will furnish us with a more complete conception of the causes occasioning this somewhat obscure symptom. It may be what Lord Bacon would call a "reduction from conceits intellectual," to insist upon greater differentiation between *memory* and *recollection*, yet, to me, the mental processes engendering these two conditions are so widely separated the one from the other as to make it of the greatest importance to distinguish clearly in their use. Memory is *passive*, recollection is *active*. *Memory* is "that faculty of mind by which it retains the knowledge of past events or ideas" [Webster]. A better definition would be, physiologically speaking, "a peculiar susceptibility of the vesiculæ neurine to the impression of events," [not of *past events*, as Webster hath it.] Every event that for the most inappreciable duration of time engages our *attention*, becomes photographed in the vesiculæ neurine. So soon as this event shall have transpired, it of course becomes a *past* event, and as such cannot be brought to present *time*, as an intellectual conception, without the aid of *recollection*. This implies an *effort* by which the event is brought from the dark room, where it has been stored up as negatives are in a photographer's studio, for the contemplation of the complete mental function. *Memory* reduces the present, so that if *recollection* will, there shall never be a past, for it will conjure up into present time ideas that long since had birth. *Recollection* implies several successive stages of cerebral action. There must be the *desire* for the reproduction from memory of a certain event. Then the *will*, which is the outward manifestation of the desire, must be brought into action to call it into existence. What then, as viewed in the light of such distinction, is the phenomenon occasioned by cerebral softening? We have no evidence that *memory* is impaired, neither may we conceive that *recollection* is any degree altered. We are wont to say that the patient has no memory of present events. He cannot remember what transpired within the past twenty-four hours. The chief factor in the production of memory is *attention*. Memory is the susceptible plate upon which attention draws the image. Every one who has carefully observed cases of brain-softening will have noticed how distrait such people are, in how great a degree it is impossible for them to concentrate their *attention*, and hence, since the factor by which the image is produced is absent, memory will be nil. The chemical reaction in the cells may be perfect, the function of memory perfect, but if *attention* be insufficient to reproduce the transpiring event, of course there can be no *recollection* of such an event. It is as if such had never been. Memory may be normal, recollection unimpaired, but attention was wanting. Unless the softening has been extensive and deep, it is very apparent how one may have a vivid *recollection* of the past. I do not say a *memory* of past events, that means nothing. At the time when such events were taking place, attention being normal, took cognizance of them and handed them to memory for safe-keeping. The desire exists, although in a modified degree according to the severity of the disease; the *will* conjoined thereunto gives birth to recollection. It would seem to me to be much more satisfactory, as it would be more correct, to say that the power of attention by which events are chronicled was wanting or very deficient in cases of cerebral softening, and hence the patient lived almost entirely in the past, not because *memory* is deficient, but because the excitant of memory is deficient. The degrees of loss of function is in direct ratio to the loss of cerebral substance.

No. 4 Iowa Circle.

## THE SOLID RUBBER BANDAGE IN SURGICAL PRACTICE.

By SAMUEL KOHN, M.D.,

NEW YORK.

Dr. H. A. Martin, of Boston, was the first to publicly advocate the use of this bandage in varicose ulcers of the leg, certain fractures ("greenstick"), some diseases of the joints (rheumatic, neuralgic, and effusive or synovial). Dr. L. D. Bulkley, of this city, in his paper published in the Archives of Dermatology for July, 1878, relates cases of chronic eczema of the legs, with thickening and induration of the skin, varicose ulcers, and ulcerations from burns, in which the use of this bandage was attended by results not attainable by any other plan of treatment.

The number and variety of cases successfully treated by the India-rubber bandage at the New York Dispensary prompt me to call the attention of the profession to the value of this bandage in surgical practice.

Gentle, equable compression is produced upon the part to which the rubber-roller bandage is applied, and, in consequence of its physical properties, it effects increased warmth and moisture of the skin. The production of these effects gives the rubber bandage

a sphere of utility which is only limited by the bounds of surgical practice.

The bandage used at the dispensary is between half and three-quarters mm. in thickness, thinner, therefore, than that used by either Drs. Martin or Bulkley, and in width varies from half to three and a half inches, according to the part to be bandaged.

The treatment of ulcers by this means, having been described at length by the writers above cited, I shall only remark that the results attained by me in these cases and in eczemas of the legs, with or without thickening and induration of the skin, have been excellent.

The rubber bandage in these cases, by exercising gentle compression upon the limb, reduces the volume of blood in the enlarged cutaneous and deeper veins, and thus replaces the tardy passage of the vital fluids by quickened circulation — it acts as a veritable "*tonic*" to the swollen, passively congested limb. The heat and moisture of the skin produced by the rubber cause the callous, elevated edges of indolent ulcers to soften and healthy granulations to spring up from their bases. the sudden epithelium is thrown off the edges, the ulcer thus being "planed off," and healing takes place, approximation of the edges by the elastic, compressing force of the bandage playing an important part therein. There will be met, however, cases in which the bandage is not applicable, for the reason that it causes the patient too much pain, but these are rare.

The results which have led to the publication of this article, have been achieved in a class of cases the treatment of which is still very unsatisfactory. I refer to the cases of glandular enlargements occurring in the neck and other parts of the body of scrofulous subjects.

The first case that I would relate in illustration, is that of a boy æt. 9 years, who presented himself at the New York Dispensary with two inflamed, enlarged glands on each side of the neck, along the anterior border of each sterno-cleido-mastoid muscle. The swellings were quite large, about three-quarters of an inch in diameter, those on the right side being hard, brawny, and painful, those on the left being natural in color; the submental and post-cervical glands were also enlarged.

The little patient had been treated at one of our largest dispensaries for the previous nine months by inunctions, painting with tinct. iodine, cod-liver oil and tonics internally; but the enlargement kept on increasing in volume, and when the patient presented himself prevented him from opening his mouth to its full extent. Cotton-batting being placed over each of the swollen glands, the rubber bandage was applied; over this, slight traction being made upon it, the first turn of the bandage covering the chin, submaxillary triangles, and temporo-occipital articulation at the vertex, the second going around the neck, and so on alternately until the three yards of bandage were used. On the third day the bandage was removed and the glands were found to be reduced in size to a surprising degree; those of the right side, which were hard and brawny at first, now presented fluctuation at their apices, necessitating very small incisions; oakum being placed over these, the bandage was reapplied. Three weeks of this treatment reduced the neck, which was the characteristically thick neck of scrofula, to its natural size and restored the natural curves.

On the right side are now to be seen two small cicatrices, underneath which, are small, hard nodules, while on the left are two glands about one-quarter the size that the swollen glands were in the commencement of treatment. The submental and post-cervical glands are also considerably reduced in size. Cod-liver oil in emulsion with the hypophosphites was administered in half-ounce doses, and the boy's general health has improved wonderfully.

In the second case, the glands had suppurated, and the puny, anæmic five-year old patient presented a pitiable appearance. On the right side, in the superior carotid triangle, was a deeply excavated ulcer, with undermined shreddy edges; and just above this, in the submaxillary triangle, was another, presenting the same appearance, which communicated with the one below; in the left superior carotid triangle, and left post-cervical region, were two other ulcers; all of these were covered by a thin, grumous, ill-smelling secretion. The mother stated that the patient had been under treatment since the first appearance of the glandular enlargements, but that her means were exhausted, and that she must resort to the Dispensary. After cleansing the parts with a weak solution of carbolic acid, oakum was applied over the ulcers and the rubber bandage applied, with instructions to remove the dressing daily, cleanse the wounds and reapply oakum and bandage. On the third day, improvement was noted; healthy granulations were seen springing up from the floor of the ulcers; the edges, previously flabby, undermined and perforated, were thicker from the fresh granulations and showed an inclination to adhere to the floor. On the eighth day, the edges had become adherent to the bases of all the ulcers, and thereafter healing rapidly progressed until the end of the fourth week, when it was complete. During the last week of treatment, the ointment of the iodide of lead was applied and seemed to hasten the healing process. Cod-liver oil with the hypophosphites was given during the whole four weeks.

It would be but repetition to further relate cases, inasmuch as all scrofulous glandular enlargements to which the bandage is applicable are treated by this means in the female surgical division under my care at the New York Dispensary, and its uniformly excellent effects are my excuse for bringing it to the notice of the profession.

In the case of a syphilitic inguinal enlargement in the groin, a so-called indolent bubo, the rubber bandage, with a compress over the gland, had the effect of dissipating the swelling in about ten days.

Lumpiness of the mammary gland, after parturition, with pain and heat, presenting the signs of incipient abscess, has been treated by covering the breast with cotton-batting, and then applying the rubber bandage; successive turns of it covering the whole breast and effecting gentle compression. On removing the dressing the second day, the breast was found considerably diminished in size, the heat and pain gone, and the cotton-batting saturated with the lacteal secretion. Several more applications of the bandage resulted in the discharge of the patient, cured. One case of abscess presented itself with an opening in the upper part of the breast, from which pus was exuding, which probing showed to be about one and a half inches deep. The bandage and oakum were applied, the breast being lifted up, and its circulation thus accelerated. In two weeks the patient was discharged cured.

In a case of epididymitis, with much swelling and tenderness, occurring in private practice, the tenderness to touch having been overcome by applications of tobacco poultices, for four days a half-inch wide rubber bandage was snugly and smoothly wound around the half of scrotum containing the affected testicle; the following day I found the patient out of

bed and walking around. But, in my opinion, rubber bags of graduated sizes would better fill the indication in these cases, because the bandage is difficult to apply and is liable to slip off.

Wherever the indication of pressure is presented, and there is no contra-indication, and the rubber bandage is applicable, I use it, and always with good results. A mere enumeration of cases thus treated, therefore, would lead me too far, and will be reserved for another article.

211 Sixth Street, New York.

## EMPYEMA TREATED BY OPEN INCISION WITHOUT INJECTIONS.

By PROF. GEORGE E. POST, M.D.,

Beirut, Syria.

F., aged eight years, was exposed to a keen wind in the latter days of February, 1878, and was soon afterward attacked with violent fever, accompanied by delirium, and intense pain in the right side. The temperature on the third day of the fever was 105° F., the pulse 120, and the breathing 48. There was dulness on the right side, extending above the nipple, and loss of respiratory murmur on the anterior and lateral aspects of the lower two-thirds of that side. The respiratory murmur at the apex, and all over the posterior aspect of the chest, was weak, but marked.

The chest was enveloped in a jacket of spongiopiline, and the patient regularly nourished at intervals of three hours, day and night, with milk and beef-tea. For fifteen days the delirium continued, but was never violent. The temperature fell to 104° and 103.5°, but did not go below that standard. The dyspnœa was never serious during this period, and the pain in the side was only felt when the side was pressed or touched. The patient could lie with equal facility on either side, or on the back.

About the fifteenth day of the disease the delirium suddenly ceased, the temperature, instead of being steadily maintained at 103.5° to 104°, stood at 103.5° in the evening and 102° in the morning; the dyspnœa became manifest, the patient could lie only on the affected side, and soon became unable to lie flat in bed at all. She required to be lifted high on the pillows, and always leaned over to the right side. On the 28th of March there was complete orthopnœa, considerable bulging of the right side, œdema of the skin up to the clavicle, and decided fluctuation two inches to the right of the nipple between the seventh and eighth ribs. The aspirator trochar was introduced, and twenty-three ounces of laudable pus withdrawn. The relief was very great; the little patient was able to lie more nearly in a supine position. Appetite, sleep, and buoyancy of spirits began to return. On the next day the dyspnœa reappeared. The aspirator, which was again used, failed to draw more than four or five ounces of pus. On the following day, March 30th, as the symptoms were still urgent, I made an open incision three-quarters of an inch in length in the situation of the puncture of the trochar. At least thirty ounces of laudable pus flowed freely away. I held a piece of carbolized gauze, folded tenply, about four inches square, over the opening, allowing the pus to ooze through its meshes. The patient had a few spasmodic fits of coughing, but was almost instantly relieved by gentle pressure on the opening, and covering the mouth with a silken scarf which she had over her shoulders. When the pus ceased to flow freely a fresh pad of gauze was slipped in place of the saturated one, and fastened in place by tapes tied around the chest. The relief to the symptoms was magical. The bowels, which had been confined, acted spontaneously; the temperature sunk to 101° morning, 99½° night; the tongue became clean; the patient was able to sleep in any position; the respiration went down to twenty-four in the minute; the appetite became ravenous. From this time, for a week, the same dressing was used. The pus never had any odor, and there was no cough. After that a tent of carbolized gauze was introduced night and morning, and kept in place by a light bandage until the 1st of June, when it ceased to enter, and the wound was quite healed.

At first there was marked lateral curvature of the spine, and considerable flattening of the chest on the affected side. At the time of this report, about eight months from the closing of the aperture, these deformities have nearly disappeared.

An interesting physiological observation connects itself with the case.

Two months before her sickness, measurements of the heights of the children of the family—three in number—were recorded on the wall of a closet in the house. At the date of the closing of the fistula in the side they were again recorded. Our patient had lost half an inch in rate of growth as compared with the other children. In other words, during the stage of waste and formation of the large abscess the nutrition of the system was suspended. Again, after six months, the measurements of the three were compared, and it was found that, with the increased ratio of nutrition which her restored health had brought about, she had made up the lost proportion of growth, and had actually outstripped her brothers in the total growth of the year. It should have been said that she has enjoyed exceptionally good health since her convalescence.

The manner of movement of the cicatrix with the motions of the ribs and respiration suggests the idea that it is now connected with the pulmonary pleura by a fibrous band. If, as I suppose, the abscess was localized by early fibrinous deposit, or rather was a cavity formed in such a deposit between the costal and pulmonary pleura, the incision did not open the pleural sac at all, and the serous membrane is still intact. This might explain the freedom of the pus from all odor, and the continuance of respiratory sounds posteriorly even to the base of the lung, when the deposit was at its maximum. I have known of a similar abscess of a portion of the peritoneal cavity cut off from the general sac by fibrinous adhesions. I mistook the case, until enlightened by a post-mortem examination, for one of abscess of the liver.

## INTESTINAL OCCLUSION—LAPARO-ILEOTOMY.

By C. SEYMOUR, M.D.,

Northampton, Mass.

Oliver W——, æt. 27. No reliable information could be obtained concerning this man's earlier history; but, when Dr. C. M. Barton, his attending physician, was called to him four weeks previous to his death, he said that during the summer he had suffered from abdominal dropsy, had been tapped, and the fluid had never reaccumulated. At this time he was suffering from obstinate torpidity of the bowels, which continued after Dr. B. had used all possible means to overcome it. After a few days anti-peristalsis en-

sued, and vomiting of fæcal matter; and only large hypodermic doses of morphine could relieve the pain in his bowels. In this condition he remained for four weeks, when Dr. Barton, who had a very intelligent apprehension of the case, advised as a last resort laparo-ileotomy, and invited me to perform it.

On examination I found the rectum entirely healthy; several quarts of water could be thrown into the colon; and the peculiar contour of the abdomen—the meteorism being confined to the meso- and lower epigastrium, while the region traversed by the colon was sunken—went to prove that the small intestines were inflated with gas; the colon, on the other hand, being collapsed. Hence I concluded Dr. Barton's diagnosis to be correct—occlusion somewhere in the ileum; and on acquainting the patient with the hopelessness of his present condition, he decided to accept the only possible chance of recovery, in an operation.

Laparo-ileotomy after Nélaton's method was then performed to allow the escape of fæces, and no search was made after the seat of the obstruction. The patient at once had a full fæcal discharge of genuine odor, and there was no escape of any matter into the abdominal cavity. There was complete cessation of pain and vomiting after the operation, and the following day the patient was comfortable and hopeful. During the night he became restless, delirious, and finally comatose, and died the next morning—thirty-six hours after the operation.

Autopsy ten hours after death. Rigor mortis very decided.

A longitudinal incision was made from sternum to pubes; but peritoneum, omenta, and intestine were so intimately blended by adhesions, that only by careful dissection could the abdominal wall be reflected from its contents. When this was achieved, and the intestines came into view, these were so firmly adherent to one another in many places, and were so closely united by innumerable bands of false membrane into one conglomerate mass, that it seemed a hopeless task to disentangle them. Besides, they were more or less gangrenous, as indicated by their roughened appearance and greenish color, and every attempt to uncoil them resulted in tearing the softened gut, leaving the adhesions intact. For this cause the search for the seat of the obstruction was reluctantly abandoned; that it was in the nature of a constriction was self-evident.

The colon throughout its extent was contracted to one-half the normal size of the ileum, from disuse. About the wound there was no evidence of recent inflammation other than that which pervaded the whole peritoneal viscera, which probably had arisen from the constriction. Of course, the old adhesions were the result of chronic general peritonitis of remote date.

This adds another to the list of fatal cases after laparo-ileotomy; but, nevertheless, I believe it to be a justifiable procedure in view of the utter hopelessness of these cases of intestinal strangulation, on the same ground that herniotomy is for a like condition; and like the latter, I believe, when the fact of strangulation is established, the earlier it is done the better.

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Diagnosis of Spinal Sclerosis.—Let the patient cross one leg over the knee of the other. If a smart rap be made upon the *ligamentum patellæ* of the supported leg, just below the patella itself, the same leg is jerked upward, to a variable degree, in the *healthy individual*. In the confirmed ataxic patient no such movement follows, no matter how hard a blow be struck.—(Dr. T. Buzzard, in *Lancet*, July 27th.)

## A NEW JOINT SPLINT, WITH A DESCRIPTION OF ITS APPLICATION TO THE KNEE.

BY CHAS. F. STILLMAN, M.D.,

CURATOR OF ST. FRANCIS' HOSPITAL, N. Y.

To produce fixation of a limb in any position, and yet allow exposure of *diseased* surface, with facilities for extension or retraction, and the production of passive motion, are the requirements which a surgeon is called upon to supply in treating any one of the numerous inflammatory conditions of the knee-joint, whether arising from disease, injury, or operation. These requirements may be met by the employment of an adjustable splint devised by the writer.

This splint may be obtained as a *brace*, or as a *bracket*. The *brace* is composed of two parts, a thigh and a leg piece, connected by a compound racheted bridge, usually placed upon the outside. (See Fig. 1.) This consists of two flat strips, one placed over the other, and both provided with slots down the centre, in which two removable thumb-screws are placed to bind them together, as in Fig. 2. The strips are best made of steel to produce the combination of strength and lightness, and can be so graduated as to indicate the amount of extension employed.

By the removal of one of the screws, a false joint is produced, but is too movable to be of value, except when passive motion is practised. The "thigh-piece"

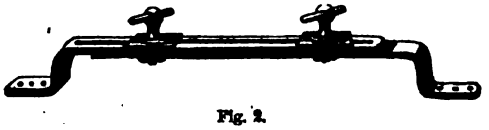

Fig. 2.

is of leather, well lined, enclosing a flexible metal sheath continuous with the bridge just described, and it is kept snugly in place upon the limb by the employment of elastic straps. The "leg-piece" is in two parts, continuous with the bridge; the steel strip descends until near the ankle, where it is bent, and passes to the back of the heel. Here it is hinge-jointed with a horizontal steel strip which, at its other extremity, is connected by a rubber cord with the first bar at the point where it is bent. (See Fig. 2.)

A piece of steel attached to the horizontal strip passes under the arch of the foot and is secured by rivets to any shoe. On the opposite side of the foot it is connected with an arrangement like that just described, but extending upwards only to the knee. Around the calf, and just below it, the leg is encircled by leather and metallic girths similar to that used around the thigh. At A there is an arrangement adapted for the removal of all the lower portion of the apparatus when not required. A prominent feature of this lower portion consists in the device for obtaining an elastic joint at the ankle; a great improvement over the false joint usually constructed.

When it is desired to fix the limb in any other position than the extended one, the addition of a slotted semicircular piece of steel, devised by the writer, of the form shown in Fig. 3, to the racheted bridge at the knee, enables the surgeon to fix the limb in any position and yet obtain graduated extension or retraction in that position.

In the cuts the flat slotted strips of the bridge protrude beyond the extremities of the arc. They should be made sufficiently short to be included within the circumference of the arc, as the limb may then be extended without removing the arc.

In many cases, however, it is preferable to use one of the immovable dressings in constructing the thigh and leg portions of the splint. Among these, plaster-of-Paris is the favorite, because of its rapidity of

Fig. 1.

hardening and solidity. For this purpose the splint is constructed as a *bracket*. This *bracket* is composed of two plates of thin, flexible zinc, connected by a compound racheted steel bridge, similar to that just described for the brace. The zinc terminal plates are so

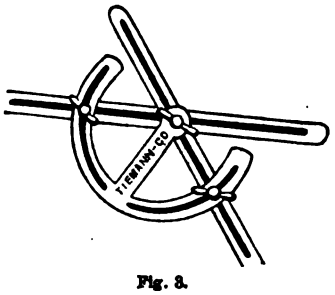


Fig. 3.

punched that the edges of the perforations will be elevated above the surrounding surface, and thus cause them to be held firmly in place by the plastered bandage. A steel slotted arc is attached to the bridge (see Fig. 3) either before or after the brackes has been placed upon the limb.

Coarsely woven and very light rolls of muslin bandage of various widths are selected, and their meshes filled with dry plaster-of-Paris.

These, at the time of their employment, are to be soaked in water, to which a quantity of table salt has been added, taken out after a few moments and applied rapidly. Each should not be more than three yards in length, otherwise it occupies too long a time in becoming thoroughly wet.

A limb is prepared for the application of the plastered bandage and bracket by one of four methods:

1st. The hair is carefully shaved off the entire limb and the surface well oiled. This is very convenient and satisfactory if the bandage be well applied, as the splint is certain to fit accurately and evenly. Its disadvantage is, that a rough plaster surface lies in contact with the skin.

2d. A covering of thin and, if possible, seamless gauze or flannel is drawn over the surface to which the bandage is to be applied. It must fit accurately and evenly, avoiding all wrinkles and creases, as otherwise discomfort will ensue for the patient. The thin gauze underwear, so much worn in summer, furnishes a very good article for this purpose.

3d. Rollers of thin soft muslin bandage may be applied.

4th. The surface may be sheathed in layers of cotton wadding.

After the limb has been prepared by one of these methods, the patient is laid upon the back on the table—the buttocks being brought close to the edge, and the foot of the unaffected limb resting upon a chair. Beginning at the foot, the leg is encased from the toes upward to a point as near the knee as practicable—the ankle being rendered firm by repeated turns of the bandage or the employment of zinc or wooden strips. The thigh should then also be encased, but not so high as to chafe the groin. If the plastered bandage be very thin, it may be applied like an ordinary bandage; if thick, the scissors must be called into requisition, as turning should be avoided. Sufficient time should now elapse for the plaster to become solid or nearly so—otherwise the plates of the brackets will exert unequal pressure upon the limb through the soft wet bandage. Two brackets should now be applied, one upon each side, as shown in Fig. 5—the zinc-plates being bent to conform accurately to the surface of the leg, and underlaid with a thickness of flannel or muslin saturated with plaster-paste. This is made by mixing plaster and salt-water until the consistence of cream is attained. The brackets are now to be secured by repeated turns of the plastered bandage over the terminal plates (see Fig. 4).

Fig. 4.

Now smear a very thin layer of plaster-paste over the whole surface, and before it "sets" apply rollers of bleached muslin neatly and expeditiously from the foot up. As the layer of plaster beneath is not quite dry, it holds the bandage firmly, and yet does not permeate through its texture, so that a clean, fresh muslin surface is established over the entire plaster surface, insuring cleanliness (see Fig. 5).

The *advantages* of both, brace and bracket are:

1st. *Immovability* or *fixation.*

2d. *Exposure of surface* for inspection or dressings.

3d. *Fixation of the limb at any angle*—either for a long or short time.

4th. *Power to produce graduated extension or retraction in any position of the limb.*

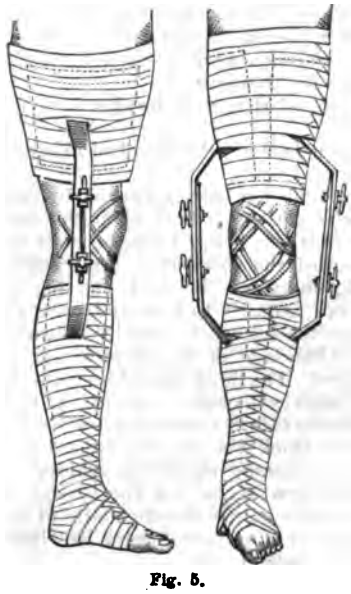

Fig. 5.

To extend the limb the screws in the slots are loosened and the lower part of the splint drawn away from the upper until the desired degree of traction is reached; then the screws are turned until the slotted strips of the bracket are clamped and rendered immovable. The extension is thus continuous, and may be graduated as occasion demands.

5th. *Power to produce passive motion whenever desired*, by simply removing one of the thumb-screws in the racheted bridge when the limb is extended and the steel arc not attached. When the arc is attached, simply loosen two of the three screws.

6th. *Simplicity.* It is claimed by the writer that this is the most simple and efficient apparatus in use to fulfil the required conditions, and its simplicity enables it to be readily improvised when desired.

The writer wishes particularly to draw attention to the efficacy of this splint in treating fracture of the patella. It permits the limb to be securely fixed in any position—allows extension in that position—and yet the surface of the joint remains open for the approximation of the fragments by elastic webbing or strips of adhesive plaster.

This splint, in its various modifications, is also adapted for the mechanical treatment of inflammatory conditions of the hip, ankle, and elbow, and is of use in many cases of fracture, simple and compound.

The results of its employment will from time to time be presented, as experience justifies.

PLAINFIELD, N. J., Feb. 25, 1879.

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DIPHTHERIA.—Dr. A. W. Hagenbuch claims to have lost only one patient out of thirty-three cases of diphtheria by pursuing the following plan: The mouth was rinsed, the secretions and detached membranes were removed by a dry swab, and a mixture of equal parts of Tr. ferri chlorid. and acid. nitric. dilut. was applied with a soft brush.

# Reports of Hospitals.

## ST. THOMAS'S HOSPITAL, LONDON.

### SODIUM SALICYLATE IN RHEUMATIC AND OTHER FEVERS.

(From a Clinical Lecture by Dr. MURCHISON, reported by A. CLIFFORD MERCER, M.D.)

SODIUM salicylate is one of the few remedies in the use of which we can expect almost certain results. It is nearly a specific. Acute rheumatism indicates its use as ague does the use of quinine. It arrests the fever, lowers the temperature, relieves the pain and reduces the swelling.

There are several patients now in the hospital convalescing from attacks of acute rheumatism, who have been treated by this remedy. Under its use the symptoms of uncomplicated cases commonly disappear during the first twelve hours. It has, however, no effect on cardiac lesions which may be present. These unfortunately often exist before the patient's admission to the hospital. But in cases in which sodium salicylate is given sufficiently early, the heart-changes are prevented from taking place. While all patients are liable to relapse, those which have been treated with sodium salicylate are not, in Dr. Murchison's experience, more so than others. On the contrary, if the remedy be given less and less frequently, for some time after the subsidence of the urgent symptoms, it will prevent a relapse.

Is the use of sodium salicylate ever attended with bad results? Yes. It occasionally causes delirium and albuminuria. These are so rare in acute rheumatism itself, as to make it probable that when they occur they are due to sodium salicylate. There is really little doubt in the matter, for they both disappear if the use of the drug is discontinued.

Some of the dissatisfaction experienced in the use of sodium salicylate is due to the way in which it is administered. It should be given at the very first in large doses frequently repeated, twenty grains every two hours, until six doses have been taken. The temperature should be noted each time a dose is given. After the third dose the temperature will begin to fall. By the time the sixth is given, the temperature, which may have been 103° F., will usually be normal. Occasionally to effect this another dose or two will be necessary. For several days following the same quantity is to be given every four hours. For several more days it is to be given every six hours. For the rest of the time up to about the tenth day, when this treatment is to stop, it is to be given every eight hours. If, however, at any time a slight increase of temperature indicates an approaching relapse, the doses are again to be given more frequently.

The success sodium salicylate has enjoyed in the treatment of acute rheumatism has led to its use in other rheumatoid affections and in gout. Here it proves of little or no service. Its uselessness in such cases has been another source of disbelief in its efficacy. Gout, chronic and subacute rheumatism are not the cases to be benefited by it. But in acute rheumatism, where fever is a prominent symptom, the remedy is of great service; the more prominent the fever, the more can be expected from the use of the drug.

What effect has sodium salicylate on other fevers? In most, when given as above directed, it will bring

own the temperature, but have no influence over the isease itself. Dr. Murchison referred to the present ndency to attribute delirium and other severe febrile mptoms to high temperature. He does not believe igh temperature the cause. Some of the fevers with ighest temperature are attended with little or no elirium, and go on to recovery. In relapsing fever, r instance, there is a high temperature with only ceptional delirium, and the patient gets well. In arlet fever, again, there is a temperature of 105° F. 106° F. without, though sometimes of course with, elirium. A case was published some years ago in hich a temperature of 120° F. proved compatible ith life. Its correctness was at first doubted. But is not now, for similar cases have been recorded nce by other physicians. Dr. Murchison himself served a temperature of 110° F. to 112° F., day after ay, in a case of convalescent typhoid fever, which nally got well. There has been no fallacy nor decepon. Such temperatures occur in cases of nervous sibility. High temperature then is not bad as a ause of other dreaded symptoms. If the former did roduce the latter, sodium salicylate would be indiated. Dr. Murchison's experience is to the contrary. e does not favor its use in typhoid fever. He ferred to a hospital case he had had in which the dium salicylate brought down the temperature, while elirium and albuminuria came on. The remedy was opped. So soon as its effects had passed off, the mperature tracing took again to its usual course on ie clinical chart, and there was after this neither elirium nor albuminuria. In another case, the remedy emed to keep down the temperature, but had no ffect on the other symptoms or the length of the disase.

The remedy may be tried in other pyrexias. It will ring down the temperature in most cases, though to degree depending somewhat on the nature of the lisease.

# Progress of Medical Science.

VARIATIONS IN THE NUMBER OF HUMAN BLOOD-GLOBULES.—Drs. Cutler and Bradford, of Boston, have been investigating the changes in the globular richness of the human blood, and have summarized their results as follows:

1. The number of globules in the cubic millimetre of blood varies greatly in different parts of the circulatory system. These local variations are dependent upon the functions of the tissues or organs through which the blood passes, and may be supposed in the main to counterbalance each other.

2. The globular richness of the blood is also affected by general causes; such as the amount of fluid abstracted from the blood (diarrhœas, increased urinary secretion (?), sweating (?), copious vomiting), and by a deprivation of the normal supply of fluid to the economy.

3. The globular richness is subject to daily variations.

4. There is a decrease in the globular richness of the red corpuscles during fasting, and an increase after a meal.

5. There is probably an increase in the globular richness of the white corpuscles during a fast, and an increase after a meal.

6. There is a variation of the globular richness in different seasons of the year.

7. There is a slight variation in the globular richness from one week to another.—*The Journal of Physiology*, Jan., 1879.

THE PATHOLOGY OF RODENT ULCER.—An interesting discussion on the nature of rodent ulcer took place recently in the London Pathological Society. The discussion was raised by the Drs. Fox, who presented microscopical specimens to the meeting and stated that their investigations had led them to take different views concerning rodent ulcer from those advocated by other observers. Thiersch distinguished two kinds of epithelial cancer, the ordinary penetrating epithelial cancer, and the flat epithelial cancer; the latter being identical with the rodent ulcer of English writers. He was the first to insist on the epithelial nature of this affection. He bases his opinion that there are two kinds of epithelial cancer of the skin mainly, if not entirely, on the histological evidence, and considers it probable that the cell-masses in rodent ulcer take their origin in the sebaceous glands, because the general shape of the masses resembles that of the glands, and because they are often found near a hair. He does not, however, find any direct evidence of the origin of the cell-masses from the glands. On the other hand, Verneuil published in 1858 a case in which ulceration of the face was produced by a cell growth, which he believed to have begun in altered sweat-glands. Thiersch and Thierfelder have also both described undoubted fatal cases of adenoma of the sweat-glands. It can hardly therefore be doubted that adenoma of the sweat-glands constitutes a variety of cancerous disease. In four cases of rodent ulcer, Dr. Thin was not able to trace the disease directly to any of the epithelial structures of the skin, but in two of his cases he found the sweat coil the seat of a new growth. From this, and from the resemblance of his cases to Verneuil's case, he was led to infer that it is highly probable that the cell-masses of rodent ulcer originally begin in the sweat-glands. He points out that the cells in rodent ulcer differ from those of epithelial cancer, strictly so called, never taking on the characteristic changes of the latter. His view, that in rodent ulcer we have a true adenoma to deal with, he believes to be strengthened by the fact that he has demonstrated a membrana propria between the cell-masses and the connective tissue.

The Drs. Fox, on the other hand, say that rodent ulcer is an epithelial growth which takes its origin from the external root-sheaths of the hairs, that is to say, from a purely epidermic structure. In the discussion on their paper, Dr. Thin declared that the specimens presented were specimens not of one disease, as the Drs. Fox believed, but of two distinct diseases, some of them being preparations of ordinary epithelial cancer, and others of rodent ulcer. This wide discrepancy in the interpretation of the appearances naturally rendered the discussion unprofitable, except in so far as it has aroused attention to the questions whether there are two distinct kinds of epithelial growth producing cancer of the skin, and whether it is possible to distinguish them microscopically. We may expect before long to have this question definitely settled.—*The British Medical Journal*, Feb. 1st.

CANNABIS INDICA IN EPILEPSY.—This remedy, in doses of gr. ½ of the solid extract three times a day, has been very successfully used by Dr. Wharton Sinkler, of Phila. One very severe case (fully detailed in *Phila. Med. Times*) was promptly cured by this agent.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, April 5, 1879.


## A NEW NATIONAL HEALTH BILL.

A SPECIAL bill for the prevention of the introduction of contagious diseases into the United States has been presented to Congress. It apparently has for its object the enlargement of powers and increase of scope of the act that created the National Board of Health. As will be recollected, the previous health bill conferred merely advisory power upon the Board, and constituted the latter a committee to report to the next Congress a plan for a National Health Bureau. The bill now before the House may be considered as a supplementary one to the preceding, and as a successful and consistent effort at compromise between the present tentative policy and the more radical measures which have been advocated. It is drawn up with great care, and with an evident determination to overcome all the objections which have been urged against the enforcement of national quarantine as was provided for in previous bills.

The system contemplates a national sanitary supervision of all vessels engaged in the transportation of goods or persons from any foreign port where any contagious or infectious disease exists, to any port of the United States. All such vessels shall be required to obtain from the consul, vice-consul, or other consular officer of the United States at the port of departure, a certificate in duplicate, setting forth that said vessel has complied with all the necessary regulations and possesses a clean bill of health. This provision applies with particular and special force to vessels from Havana, a clause in the bill defining in detail the duties of the medical officer in charge of the port. The said inspector must issue a certificate setting forth "that he has personally inspected said vessel, her cargo, crew, and passengers; that the rules and regulations prescribed by the National Board of Health in respect thereto have been fully complied with, and that in his opinion the said vessel may be allowed to enter any port of the United States and land its cargo and passengers without danger to the health thereof on account of any contagious or infectious disease." Any vessels from such port entering any port of the United States without such certificate shall in each instance forfeit the sum of five hundred dollars. The execution of these provisions is entrusted to the National Board of Health. The latter is also charged with the duty of obtaining information of the sanitary condition of foreign ports and places from which contagious diseases are or may be imported into the United States, and also similar information from home ports. It is also provided that the National Board of Health "shall correspond with similar local officers, boards, and authorities acting under laws of the States in sanitary matters, to prevent the introduction and spread of contagious and infectious diseases from foreign countries into the United States and from one State into any other State by means of commercial intercourse, or upon and along the lines of inter-State trade and travel." To such an end it shall be lawful in times of emergency for said board of health to confer upon any such local officer or board within or near the locality where his or its authority is exercised, power also to enforce the provisions of this act, and any rules and regulations made in pursuance thereof.

Section fifth provides that suitable rules and regulations shall, from time to time, be promulgated, so that when cholera, yellow fever, or other similar contagious diseases shall be ascertained by the Board to exist in any part of the United States, in such form as threatens its spread, as to prevent as far as practicable the communication of the same to other localities within other States by means of vessels or vehicles engaged in transporting passengers or merchandise, whether by land or water. "And in that case the Board of Health shall select suitable localities for establishing stations on the river and other lines of inter-State commerce and travel by railroads, and may cause to be erected necessary temporary buildings for the disinfection of passengers, baggage, cargoes, vessels and vehicles, and may enforce such rules and regulations relating thereto as may have been prescribed therefor."

The foregoing comprise the principal provisions of the bill in question, except one, which refers to the possible refusal of any local health officer to comply with the rules and regulations prescribed by the National Board. In such a case "it shall be the duty of the Secretary of the Treasury to appoint a health officer of the United States for said port, who shall perform the duties thereof as prescribed by said board of health."

The general impression concerning the utility of this bill cannot fail to be favorable. Although some other provisions might be added which would render it more promptly effective in times of emergency, there

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are so many good features contained in it that it is easier to commend than to criticise. How some of the provisions may affect the States' rights, is a question for our legislators to answer. For instance, the removal of State officers of quarantine by the General Government may not be constitutional, although, for such reasons as are assigned, it would be perfectly proper. Again, the power to confer extra authority upon a State officer for the enforcement of necessary regulations may also be questioned by the ultra advocates of State rights. At all events, this delegation of extra authority appears to be somewhat inconsistent with the closing declaration in the bill, which provides "that nothing in this act shall be so construed as to supersede or impair any sanitary or quarantine law of any State." Allowing, however, that the bill is consistent throughout, and reasonably practical, it will become virtually inoperative for the want of suitable pecuniary appropriation. The sum of fifty thousand dollars, which is all that is allowed for the current expenses of the Board, is certainly insufficient to meet any extra emergency that may arise. If the Government orders certain things to be done, it should provide the necessary means. In no better and more direct way can it accomplish its ends. Let, for instance, the government, through its health board, give pecuniary aid on conditions necessary to protect the people at large, and the conditions are pretty sure to be observed. In fact, we are quite sure that this will be the most powerful argument in favor of government interference and aid more than anything else, in reconciling the States to a uniform system of sanitary regulation. We believe, however, that the necessary appropriation will be made before the bill comes up on its final passage.

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### OPIOPHAGY IN THE UNITED STATES.

CERTAIN statistics collected by Dr. O. Marshall, of Michigan, and by Dr. C. E. Wright, of Indiana, oblige us to believe that among other "evils on the increase" the opium habit is to be included. If we may rely upon the statistics furnished by Royce in his work on Race Deterioration, nearly every form of disease or phase of vice is rapidly multiplying, and we are all, it naturally follows, going to the bad, in spite of millennial prophecies and the hopeful generalizations of the developmental philosophy. We do not believe, however, that the future is quite so dismal as Mr. Royce would paint it, and we may find some ground for encouragement in the fact recently shown by a writer in *The Fortnightly Review*, that even insanity, intemperance and crime are not increasing disproportionately to the population.

Nevertheless, the statistics disclosing the great increase of the particular vice of opiophagy in the United States can hardly be disputed. Thus in 1867, with a population of 37,000,000, there were imported 136,000 pounds of opium. In 1876, with a population of 44,000,000, about 340,000 pounds were imported. The amount of opium is much more than doubled, while the increase of population is only at about the rate of twenty per cent. If we may draw general conclusions from local studies, a very large part is consumed by opium-eaters. In the city of Indianapolis there are said to be five hundred of these, who consume nine hundred pounds of the drug a year. Dr. Marshall, who sent around printed inquiries concerning this matter to the physicians in the various towns of Michigan, received replies from ninety-six, these ninety-six reporting 1,313 habitual users of opium, or an average of thirteen within each one's observation. There is no reason to suppose that in either Indianapolis or the villages of Michigan opiophagy is peculiarly endemic.

Both the joys and the sorrows of opium-eating have, we think, been much exaggerated. In most persons, the pleasurable sensation does not rise much above that of a *bien-être*. The luxurious visions and Oriental imagery are generally the later creatures of a rhetorical pen and an undrugged imagination. The pains, too, though terrible, are not peculiar. They are those of an enfeebled will struggling against an overweening passion. It is from those who are naturally sentimental and imaginative that the glowing descriptions of the Satanic powers of opium come.

The continual use of the drug cripples the mental and physical being, it clogs the wheels of life and makes its victims lazy and listless dreamers. Nevertheless, it is often not incompatible with a long and tolerably active life. Opiophagists—and we may here give credit to Dr. Wright for coining the word—have lived to the good old age of one hundred and four. Although in the end it enfeebles and emasculates its victims, there may be for a time increased power of endurance and a diminished liability to contract contagious disease. Thus, from a medical point of view, we must say that though its use is always bad and degrading, it is not unqualifiedly so.

As far as remedying this growing habit is concerned there is no very effectual way. In China, where the drug has been poisoning the people for a hundred years, very great efforts have lately been made to put a stop to or diminish its use. So far these have been in vain, but a final edict has now gone forth making its use and sale punishable by death. The law goes into force in 1880, and it remains to be seen whether its provisions will be carried out so strictly that the ten millions of opium-eaters in the Celestial Kingdom will be inclined to seek some freer country in which to gratify this uncontrollable appetite.

It is quite evident that there is little that government can do, and we must rely chiefly upon private effort in exposing and denouncing the evil. By keeping its dangers, and especially its increasing dangers, before the public, a sentiment may be created which will accomplish some good.

### FEMALE PHYSICIANS IN INSANE ASYLUMS.

A BILL for the employment of female physicians in State asylums for the insane, is now before the Legislature of this State. As the said bill is short, we give it in detail as follows:

"The trustees of the several State asylums for the insane, namely at Utica, Poughkeepsie, Middletown, and Willard, shall employ one or more competent and well-educated female physicians to have the charge of the female patients of said asylums, under the direction of the medical superintendents of the several asylums, as in the case of the other or male assistant physicians, and to take the place of such male assistant physician or physicians, in the wards for female patients."

On general principles we are in favor of the employment of female assistant physicians in the female wards of insane asylums. There is no doubt that they will do their work thoroughly and conscientiously; neither is there doubt that a sufficient number of thoroughly educated female physicians can be found for such situations. Having said thus much, we call attention to a particular wording of the bill which is quite objectionable, in that it makes the appointment of these women to such positions obligatory on the part of the superintendent, instead of simply permissive.

We so strongly incline to the wisdom of the latter course, that we cannot endorse the bill as it stands. Furthermore, as it at present carries the conviction on its face of being a striking example of class legislation, its defeat is certain unless some compromise is made. But, it is such an easy matter to alter the objectionable phraseology, that we have no doubt it will be done.

## Reviews and Notices of Books.

SECTION-CUTTING. A Practical Guide to the Preparation and Mounting of Sections for the Microscope. By DR. SYLVESTER MARSH. Pp. 87. Philadelphia: Lindsay & Blakiston.

THIS little book gives in a plain and practical manner all those minute details of the various steps to be followed in the preparation of microscopical sections, which most works on the subject seem to regard as already known to the student. To the expert worker in histology it will be of but little service, as the methods recommended are not only few in number, but also not always the best known. For instance, in the section devoted to the hardening of animal tissues no mention is made of Müller's invaluable fluid, and paraffine is the only material recommended for imbedding; and in describing the use of the freezing mixture no mention is made of the importance of subjecting the knife to be used to the same cooling process.

The statement that "very few persons acquire skill in free-hand cutting, even after much practice," is undoubtedly exaggerated, and explains the undue value which the author attaches to that usually superfluous instrument, the microtome.

For those who are desirous of learning how to use the microscope without the aid of a teacher, the book can be recommended as likely to give them valuable aid in the early steps of their arduous studies.

CLINICAL LECTURES ON DISEASES PECULIAR TO WOMEN. By LOMBE ATHILL, M.D. Fifth edition, revised and enlarged. Philadelphia: Lindsay & Blakiston, 1879. Pp. 342.

THE author of this manual has successfully resisted the temptation to expand it into a complete treatise on gynæcology. The demand for a fifth edition proves the wisdom of his resolution and the value of the book in its present form. The last edition differs from the preceding one only in a general revision and in the rewriting of the chapter on Chronic Endometritis. In this he strongly recommends the direct application of nitric acid or nitrate of silver, together with local depletion. The chapter on Displacements is a rather meagre one, and we think it a serious fault that there is so slight indication of the great value of trachelorrhaphy and perineorrhaphy in uterine disorders. The book is, however, a well-written compend upon its special subject, and will continue to be useful to students and suggestive to practitioners.

FRACTURE OF THE FEMUR. BY EDWARD BORCK, M.D. Saint Louis: Geo. O. Rumbold & Co.

DR. BORCK, in a clever monograph, reviews the whole subject of treatment of fracture of the femur, and claims that the method that offers most advantage is the double inclined plane. He holds that the straight splint is incorrect in theory and practice, and that a case so treated can be recognized post-mortem by the oblique union of the fragments. He suggests "to put the patient on a firm mattress, elevate the bed three or four inches, place the patient in a semi-sitting posture, and the fractured thigh on a double inclined firm pillow or triangular wire frame. If counter-extension is requisite, make it from the knee by a loop of adhesive plaster applied in the ordinary manner; the post over which the cord passes being placed to the right of the median line, if the right femur is broken, and if the left, to the left.

The whole subject of fracture is very thoroughly treated, and the arguments he advances in favor of the double inclined plane are very forcible, first, as to surgical mechanics, and second, as to the comfort of the patient. The position of the patient renders counter-extension unnecessary in cases where extension is indicated.

DIPHTHERIA: ITS NATURE AND TREATMENT. VARIETIES AND LOCAL EXPRESSIONS. BY MORELL MACKENZIE, M.D., LONDON, Senior Physician to the Hospital for Diseases of the Throat and Chest; Consulting Physician to the North Eastern Hospital for Children; and Lecturer on Diseases of the Throat at the London Hospital Medical College. Philadelphia: Lindsay & Blakiston. 1879.

DR. MACKENZIE'S work is a judicious digest of the subject of diphtheria. Although there is but little novelty presented, the deductions are valuable, and evidently the result of a careful consideration of the disease.

In regard to the etiology, after a thorough review of the different opinions, he adds, "no satisfactory theory has yet been offered as to the reason why in certain years the disease should spring up in epidemic form, and resist all our attempts to arrest it. While at other times it arises perhaps in some remote hamlet, without any traceable antecedent, and after flickering for a time dies away as suddenly as it appeared."

He divides the disease into: 1. The typical form; 2. The mild, or catarrhal form; 3. The inflammatory form; 4. The malignant form; 5. The gangrenous form; 6. The chronic form.

The chapter that will interest the average practitioner most, is that on treatment. Dr. Mackenzie has no specific to offer, but holds that the patient's strength should be husbanded from the beginning with nourishment, aided by the free use of stimulants.

He does not speak distinctly on the subject of local treatment in regard to the benefit to be obtained, but holds that in some cases it seems to be of advantage, whereas in others it acts as an irritant. In a chapter on Laryngo-Tracheal Diphtheria, he argues against the duality of croup and diphtheria.

He holds that there is no clinical difference either in the site of the disease or its manifestations, and that paralysis, though rare in croup from the great mortality of the disease, still does occasionally occur in those that survive. He divides laryngo-tracheal diphtheria into three stages: that in which the voice is changed, that in which the dyspnœa is paroxysmal, and that in which the dyspnœa is constant. He advises tracheotomy at the end of the second stage, when emetics and inhalations have failed, and at any time during the third stage.

THE INFLUENCE OF POSTURE ON WOMEN IN GYNECIC AND OBSTETRIC PRACTICE. By J. H. AVELING, M.D. Philadelphia: Lindsay & Blakiston. 1879. Pp. 182.

IT appeared to us on first receiving this handsomely printed book that here was a good deal of literature for the single subject of posture. The author proves his subject to be an important one, however, and he has made a book containing much that is new and interesting. Among other things, he discusses the sitting posture, and launches into a diatribe against the chair. He claims, in effect, that it is the bane of woman, and a reproach to our civilization, and suggests in place of it either the Turkish divan or some arrangement which will allow the feet to be kept in a horizontal position. He makes out a very good case against the chair, but we doubt the practicability of his substitutes for it.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF TENNESSEE. Forty-fifth Annual Meeting, 1878. President, R. F. Evans, M.D.; Secretary, J. Berrien Lindsley, M.D.

AMONG other interesting papers embodied in this pamphlet is one by Dr. W. T. Hope, on the so-called typho-malarial fever. Many are disposed to question the claim of this disease to being a distinct morbid entity. Dr. Hope is among these, and considers it only the southern form of typhoid fever. Typhoid fever at the south is milder in its course than that at the north; the characteristic spots are very rarely seen, and the intestinal lesion is less severe. It is sometimes undoubtedly modified by malarial influences, but it is typhoid fever. "Preventive Medicine" occupies a place in this as in almost all the transactions of southern medical societies just now, and there are a number of other papers that reflect credit on the Society.

HEALTH PRIMERS. No. 1. Exercise and Training; No. 2. Alcohol, its Use and Abuse; No. 3. The House and its Surroundings; No. 4. Premature Death. New York: D. Appleton & Co. 1879. Pp. 95.

THESE are the first four of a series of fifteen small works, of which the design is that they should treat in a popular manner various topics of hygiene and physiology. They are edited and written by prominent English authorities, and will fulfil a very desirable object in giving to the general public elementary but reliable information upon the important topics chosen for discussion.

YELLOW FEVER. By T. O. SUMMERS, M.D. Pp. 72. Nashville: Wheeler Bros. 1879.

THE author of this little work gives an interesting though decidedly dogmatic account of his views upon yellow fever. He does not believe that it is always an exotic, and consequently denies the efficacy of a national quarantine. The book forms a useful contribution to the literature of this subject.

ON THE TREATMENT OF PULMONARY CONSUMPTION, with Appendix on the Sanitaria of the United States, Switzerland, and the Balearic Islands. By J. H. BENNET, M.D. Third Edition. Phila.: Lindsay & Blakiston. 1879. Pp. 286.

THE first edition of this book was published with a view to advocating the hygienic and sthenic treatment of phthisis. It had then a mission, which it well fulfilled, in directing the attention of the profession to the general health and nutrition of the patient rather than to the local lesion. The necessity of this is now well recognized, and the value of the book at present, therefore, consists in its containing still a very good exposition of the hygienic, medicinal, and especially the climatic treatment of consumption. The present edition is enlarged by a chapter on mountain climates, of which the author does not speak favorably. In the appendix is a brief and not very satisfactory account of the sanitaria of this country. The author attempts to discuss the pathology of the disease, and advocates the views of the late Prof. Bennet. He here develops a surprising ignorance of this aspect of the question—an ignorance, however, which does not particularly impair the value of the book.

PHYSIOLOGY: Preliminary Course of Lectures. By JAMES T. WHITTAKER, M.A., M.D. Illustrated. Cincinnati: Robert Clarke & Co. Pp. 288. 1879.

THESE are very admirable lectures, and deserve to become popular. The author has covered ground which is of vital importance in physiological teaching, but which few lecturers have time to go over. We refer especially to the subjects of conservation of force, evolution, and the properties of protoplasm. The author's treatment of these questions is clear and thorough, and though somewhat elementary, probably few will find it too much so.

Evolution is taught as an accepted fact. To this there can be no objection as long as the evolutionist does not claim to know and teach all the forces and laws which govern development, and does not, further, claim that the process is one of gradual and uniform progression. That the present orderly universe has been slowly evolved from a low and simple to a higher and complex form, cannot be doubted. But when the teacher attempts to say how the changes from the physical to the chemical, from the chemical to the vital, from the vital to the conscious take place, then he passes out of the domain of fact and into that of the imagination. Evolution may be considered proven, but the mechanical cosmogony which would explain its processes is as yet only a plausible hypothesis.

It is but just to say that in this book there is no dogmatism anywhere, but disputed questions are stated fairly and left to the judgment of his readers.

The lectures are printed and illustrated in very good style, though not in the best.

# Reports of Societies.

## NEW YORK NEUROLOGICAL SOCIETY.

*Stated Meeting, March* 3, 1879.

DR. J. C. SHAW, PRESIDENT, IN THE CHAIR.

### ATHETOSIS—HEMIPLEGIA—INFANTILE ENCEPHALITIS.

DR. E. C. SPITZKA presented a case of athetotic movements following hemiplegia from infantile encephalitis, in a young man twenty-two years of age. The movements were interrupted and unilateral.

DR. E. C. SEGUIN remarked that the case reminded him of athetoid movements which he had seen in hemiplegic children, with a certain amount of contracture. In those cases he had offered the explanation that the movements were due to uncontrollable automatic spinal action.

DR. SPITZKA thought it probable that the affection was spinal, modified by partial lesion of the thalamus in the form of sclerotic cicatrices.

DR. L. C. GRAY asked how the movements of the orbicular muscles were to be explained if the lesion was in the thalamus?

DR. SPITZKA remarked that there was no paralysis of the muscles, but an uncontrolled action.

### PARAPLEGIA IN SYPHILITIC SUBJECTS.

DR. E. C. SEGUIN read a paper upon the above subject. Avoiding the common term "syphilitic paraplegia," for several reasons:

1. It was not very scientific, because the present tendency was toward an anatomical classification.

2. The relation between syphilis and existing paraplegia in a given patient was often a matter of great uncertainty.

3. Paraplegia, which improved under the use of mercury and iodide of potassium, was believed by many to be syphilitic, whether the patient admitted or denied syphilis.

4. There were no definite symptom groups, which informed us that syphilis has attacked the spinal apparatus.

DR. SEGUIN then related the histories of four cases. The following were some of the interesting features which they presented: All four described chancres, and had secondary symptoms. The time which elapsed before the paraplegia began was variable, as follows: In one case, *twenty-six* months; in one, *six* months; in one, *ten* months; and in one, *seven* years elapsed after the development of the initial lesion before paralysis manifested itself. With one exception, the development of the paraplegia was rapid. There was paralysis of the bladder in all four cases, thus indicating lesion in the dorsal region of the cord. The attacks were all severe. Complete cure was obtained in only one case. There was a remarkable amelioration of symptoms in all the other cases.

Two cases were then reported, which illustrated mistakes in diagnosis. In one case there was the exceptional symptom, namely, *marked staggering when the eyes were closed, yet no anæsthesia of the soles of the feet.*

DR. SEGUIN thought that at the present time we were not able to make a positive diagnosis of paraplegia dependent upon syphilis. Paraplegia of syphilitic origin was usually atypical. It was far from proven that no difficulties were cured by mercury and iodide of potassium, except syphilitic affections.

The treatment of paraplegia occurring in syphilitic subjects should be energetic, and should be carried on by the simultaneous use of mercury and iodide of potassium. The iodide of potassium should be used after the American method—fearlessly; and even as much as 32 grammes could be administered daily. Tonics were frequently required, and the best was cod-liver oil. It was important to keep the bladder empty so as to prevent or reduce cystitis, and to prevent bed-sores. In conclusion, he called the attention of the society to the following points:—1. The question of diagnosis, was it possible? 2. The manner of giving mercury and iodide of potassium in this affection: 3. The value of the therapeutical argument in diagnosis, *post hoc;* and 4. The prognosis in paraplegia occurring in syphilitic subjects.

DR. SPITZKA asked Dr. Seguin if he regarded it necessary to salivate the patient?

DR. SEGUIN replied that it was not necessary.

DR. SPITZKA remarked that he had obtained the best results by the use of mercury in minimum doses, and in such manner as not to touch the gums or produce salivation. Reference was made to a case in which he administered the bichloride in doses of $\frac{1}{10}$ of a grain four times a day, with intermissions. He had frequently noticed that when the disease was attacked energetically the nervous symptoms were aggravated.

DR. L. C. GRAY referred to a case in which there was an ambiguous syphilitic history. There was more or less muscular atrophy of the upper portion of the arm, the shoulder, and the elbow; there were radiating pains throughout the entire upper extremity; there was diminution in response to the Faradic current; in other words, there was evidence of destruction of ganglion cells in the anterior cornua of the cervical enlargement. Under the iodide treatment the atrophy disappeared and the patient was cured in six weeks.

DR. PUTNAM-JACOBI thought that the physiological experiments upon record regarding the effect produced by mercury were quite sufficient to show that the drug acted by gradually destroying the blood corpuscles which had become diseased by syphilitic poison. The question of dose was determined precisely by that fact, and those doses were beneficial which only destroyed the blood corpuscles as fast as new ones could be produced. She asked Dr. Seguin if he had a definite opinion with reference to the special lesion in the paraplegia described, or whether he attributed it merely to the action of the diseased blood upon some special portion of the spinal cord?

DR. SHAW remarked, that in the main, he agreed with Dr. Seguin relative to the treatment of the disease, but he had certainly seen cases in which small doses of mercury were more beneficial than large ones.

DR. SEGUIN said that the anatomical diagnosis he would make in these cases was *meningo-myelitis, with perhaps such an accumulation of syphilitic products as might form a tumor.*

He had not used small doses of mercury in the treatment of any cases of syphilis affecting the nervous system, yet should not be disinclined to try the experiment when no threatening symptoms were present; but when everything was progressing, he should be unwilling to abandon the established method of using mercury in moderate quantities and touching the patient's gums as soon as possible.

DR. PUTNAM-JACOBI remarked that small doses of mercury were perhaps more admissible in the treatment

of simple constitutional syphilis. In cases, however, in which a special lesion already existed, the mercury must act not only upon the blood, but must be brought to bear upon the new connective-tissue formation.

DR. SEGUIN remarked that in the treatment of general syphilitic infection he had used small doses of mercury, and regarded it as an excellent method of administering it.

DR. MORTON reported several clinical cases. In the treatment of one, mention was made of the hypodermic use of strychnia into the eyelid and into the socket for the purpose of bringing the agent into more direct contact with the paralyzed muscles. Drs. Spitzka, Gray, Shaw, and Seguin maintained that no effect could be produced upon paralyzed muscles by using strychnia in that manner.

#### CHRONIC ULCERS AND ECZEMA CURED BY GALVANISM.

DR. MORTON reported one case of chronic ulcer of the leg which he had cured by galvanism, and also cases of *chronic* eczema which he had cured rapidly in the same manner. A battery was attached to the ulcer or patch of eczema in the following manner: a silver plate, large enough to cover the patch or the ulcer, was attached to a plate of zinc by a copper-wire. A piece of charpie was placed over the ulcer, and upon that the silver plate was fastened by means of a bandage. The zinc plate was wrapped in lint, kept wet with dilute acetic acid, and secured to the limb by a bandage. In the case reported the ulcer had resisted all manner of treatment, but after the patient had worn the battery for three days, it was found that the excavation was filled with granulations and in six days it was completely healed.

The Society then went into Executive Session.

## NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, March* 20, 1879.

FORDYCE BARKER, M.D., LL.D, PRESIDENT, IN THE CHAIR.

#### DO THE COLORED BLOOD-CORPUSCLES POSSESS CONTRACTILITY?

DR. LOUIS ELSBERG read a paper upon the above subject, in which reference was first made to the opinion of various observers, such as Beale, Stricker, Max Schultze, and others, who did not believe that the red blood-corpuscles possessed any living contractility. His own investigations had proved to him the affirmative of the question, and, in the second place, reference was made to the observers who, at various times, had given expression to the same opinion. The first to accord living contractility to the red blood-corpuscles was Klebs. Subsequently, Böttcher, Brücke, Preyer, and others, had either advocated or admitted the possibility of vital contractility in the colored blood-corpuscles, and Max Schultze had admitted that the red blood-corpuscles of the young embryo of the chicken were contractile. Lieberkühn, Faber, Bastian, and Brand, were also quoted in support of the affirmative of the question.

Dr. Elsberg then gave the results of his own investigations, which commenced about three years ago. To conduct the observations, he had found that the normal heat of the fluid was not essential to the occurrence of the contractile movements, and the development of what he termed the thorn-like processes.

#### METHOD OF INVESTIGATION.

By adding to a drop of blood fifty per cent. of a saturated solution of bichromate of potash, covering it with a covering-glass, the edges of which had been well oiled, and placing it under a magnifying power of 1,000 or more diameters, he had been able to prove that the red blood-corpuscle possessed not only inherent power to contract its body, but also to resume its ordinary form, yet not to such an extent as seen in the colorless blood-corpuscles; they exhibited active form-changes and interior movement. The changes in form were of two varieties—indentation and protrusion; sometimes one, sometimes the other taking place, and both might occur in the same corpuscle at the same time. The indentation usually commenced first, and ordinarily predominated. He had observed the indentation to go on to the production of almost complete division of the corpuscle, but had never observed entire separation. Dr. Elsberg then described various forms which the red blood-corpuscle assumed, such as have already received the names roseated, crenated, stellated, formation of bud-like processes, separation of such formations, etc., etc.

He also believed that the red blood-corpuscle contained a network identical with that already discovered in the white blood-corpuscle.

The conclusion reached by the author of the paper was that *vital* movements took place inside of the red blood-corpuscle, and also such as changed the form of the body.

The paper being before the Academy for discussion,

DR. AUSTIN FLINT, Jr. expressed slight disappointment in not learning more from Dr. Elsberg's paper, for he had hoped that the doctor would have given not only a description of what he had seen, but some inkling of the physiological application of these anatomical facts. Dr. Elsberg had presented the literature upon the subject very fully, and much more belonged to it than he had supposed existed; but the important question was, what light did these facts—which, from the very clear statements made, could hardly be doubted—throw upon the function of the red blood-corpuscle. Again, how did the observations made by Dr. Elsberg affect the question seriously discussed by some at the present time, of the existence or the non-existence of membrane; that is, whether the red blood-corpuscle was a cell with a membrane and contents, or a body with homogeneous consistence throughout? There was a very great vacuum in our knowledge of the physiology of the blood with regard to the red blood-corpuscles, and one which seemed not to be likely to be filled. With the exception of the function of the red blood-corpuscles as oxygen carriers, our knowledge regarding their function was very indefinite indeed. The necessity of the red blood-corpuscles to life was not measured at all by the function of carrying oxygen to the tissues, although that function was the only one distinctly understood and positively ascertained.

#### BLOOD-CORPUSCLES IN THE BLOOD OF ONE ANIMAL DISSOLVED BY THE PLASMA OF THE BLOOD FROM ANIMALS OF ANOTHER SPECIES.

When the blood of one class of animals was injected into the circulation of another class, although, for a time, it seemed to perform the function of the original blood—seemed to restore the vital processes, so-called, that restoration, if the quantity of blood used was considerable, was not permanent, and the animals receiving the blood from animals of a different species, would, after a little time, die. The explanation was,

that the plasma of the blood of certain animals dissolved the blood-corpuscles in the blood of other animals.

HÆMAGLOBINURIA.

DR. FLINT then referred to a case which he had had under observation, in which the patient was suddenly seized with a general feeling of chilliness, and presently a discharge of dark red urine which soon became intensely black. From naked-eye examination it would be supposed that the urine contained a considerable quantity of blood, but examination with the microscope determined that no formed elements of the blood were present. Examination by other means, spectroscope, etc., however, proved that the urine contained coloring matter of the blood. The disease had been described by an English and a German writer, and he had hoped to learn something from Dr. Elsberg's observations, which might assist with regard to the pathology of that and of other diseases.

DR. W. H. WELCH remarked that the interest of the question as to the contractility of the red blood-corpuscles centred in determining whether they contain protoplasm endowed with amœboid movements.

Of the array of authors mentioned by Dr. Elsberg as favoring the doctrine of vital contractility, only Klebs had such familiarity with microscopical studies as to enable him to speak with any authority; but his argument was based upon the very gross blunder that certain peculiar changes of form of red blood-corpuscles occurred at the temperature of the human body, whereas, as Max Schultze subsequently demonstrated, they first appeared at a temperature of 52° C., a temperature destructive of the life of animal and nearly all vegetable protoplasm. Friedreich and Faber, the two most ardent champions of the doctrine, had clinical and not microscopical training. On the other hand, Rollett, Max Schultze, Kühne, and Arnold of Heidelberg, whose familiarity with the phenomena of living protoplasm could not be surpassed, had spoken decidedly against the doctrine of vital contractility.

Although the origin of the red blood-corpuscles formed one of the most obscure chapters in embryology, it seemed pretty certain that they were developed from protoplasmatic bodies. Dr. Welch referred to the transition forms between white and red blood-corpuscles to be observed in the marrow of the bones in progressive pernicious anæmia and in certain forms of leucocythæmia. While it was by no means improbable that the red blood-corpuscles might still contain a remnant of protoplasm, still such had not been satisfactorily demonstrated to be the case, and it was certain that the greater portion of the pre-existing protoplasm had been changed chiefly into hæmoglobin. All such metamorphoses of protoplasm with which we were acquainted were accompanied by a loss of the power of amœboid movement in proportion as the new product differed from the protoplasm of the formative cell. The process of development, therefore, of the red blood-corpuscle rendered it improbable that they could possess any very active amœboid movements.

The changes of form observed by Dr. Elsberg had been previously fully described by Preyer, Friedreich, and Faber, the two last making their observations upon red blood-corpuscles in albuminous and bloody urine. Those contractile phenomena were very unlike those to be seen in amœboid cells, and one familiar with the latter would hardly bring the two into the same category. Of a quite different nature were the real amœboid changes which had been observed in the nucleated red blood-corpuscles in the earliest stages of embryonic development. The amœboid movements of cells were best studied in the media in which they normally existed, whereas the peculiar changes of form of the red blood-corpuscles were most active in abnormal media, such as the bichromate of potash solution, employed by Dr. Elsberg, which, although an excellent preservative of the forms of cells, was not favorable for an exhibition of their vital phenomena. If the deformations of the red blood-corpuscles were really of the nature of amœboid movements, they should by all analogy be seen to greatest advantage when examined in blood serum on a warm table kept at the temperature of the human body; whereas, as Max Schultze had shown, they preserved their forms unchanged under those circumstances so long as the action of unfavorable influences, such as evaporation, was presented. Friedreich observed the changes which he considered to be vital at a temperature of 12° R., while the white blood-corpuscles were passive, and Faber noticed that contractility could still be seen after keeping the blood six or seven days in a warm room, when the white cells had lost their contractile power.

The theory of vital contractility of the red blood-corpuscles was, above all, disproven by the fact that exactly the same changes, and even more active ones, could be produced under circumstances absolutely destructive of the life of amœboid cells. The movements described by Dr. Elsberg, and even more fantastic and bizarre forms, could be produced on red blood-corpuscles subjected to a temperature of 52° to 60° C., which destroyed the life of animal cells. The red blood-corpuscles could be seen to send out buds and bead-like processes and to break up into large and small globules. Other influences, likewise most unfavorable to the exhibition of real amœboid movements, such as induced electric currents, strong solutions of tannin and of urea, would develop similar metamorphoses of the red blood-corpuscles.

Dr. Welch, in conclusion, said that he could not see that the observations of Dr. Elsberg afforded any reason for reversing the opinion now held by all the the most eminent microscopists. The change in shape of the fully-formed human red blood-corpuscle were not vital in the sense in which the amœboid movements of protoplasm were vital.

DR. PIFFARD referred to investigations which he had made regarding the appearances and properties of the vaccine scab. The scab was dissolved in a six per cent. solution of caustic soda, and when a drop of the liquid was placed under the microscope a variety of forms could be seen, and a change in their outline could be readily observed. He assumed that the bodies were fungi. He had them photographed, and published a description of them in the *New York Medical Journal* in 1872. The question then arose, were the changes seen to take place in those bodies due to inherent power of contractility or to changes occurring in the fluid in which they were held in suspension? He had not been able to solve the question, and believed that the entire question with regard to blood-corpuscles was in the same condition. He thought it was impossible to decide whether they were active changes or were due to external influences. He believed that the bodies seen in the dissolved vaccine scab were dead.

In closing the discussion, DR. ELSBERG remarked that he had not referred to the physiological or pathological bearings of the results of his investigations, for the reason that a limit must somewhere be made, and the time was too short to do more than describe the anatomical changes seen. From the investiga-

tions made he was able to say that the red blood-corpuscle had *no separate investing membrane*. With reference to the practical bearing of the observation, he would state that if it was true the red blood-corpuscles were really unattached portions of the living protoplasm of the entire body, it was easy to understand how, after giving up their coloring matter, they might play an important part in the reparative process following extravasations and the proliferations which were induced by inflammation. He believed that the blood-corpuscles were able to make up all the tissues of the body.

By the term contractility he meant *vital contractility* only, and with Dr. Welch he agreed that the gist of the subject existed in the solution of the question, whether or not the colored blood-corpuscles were living bodies? With reference to that answer he was able to say that while observing the change in form of the red blood-corpuscle, he at the same time saw the change in form and movements of the colorless blood-corpuscles, thus proving that the conditions were not unfavorable to the preservation of life.

With reference to the question, were the movements and the phenomena which he described really living in the corpuscle, or were they artificially produced by the reagents employed, he remarked it was well known that dilute solutions of bichromate of potash in Müller's fluid were the best preservative fluids which could be used for the most delicate animal structures. In the series of investigations which he made he had found that the weakest solutions employed had not produced any appreciable effect upon the blood-corpuscles, while by increasing the strength of the solution the hæmoglobin which interfered with seeing the structure of the corpuscle was removed, and yet the structure became visible, and the manifestations of life remained. From that fact alone it must be inferred that the reagent had not destroyed the protoplasm or vital properties of the matter subjected to its influence. He believed, therefore, that he was justified in saying that the red blood-corpuscles, like the white blood-corpuscles, were unattached portions of living matter of the body, and that the essential difference between the two was singly and alone the presence of the coloring matter in the one and its absence in the other.

The Academy then adjourned.

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## SURGICAL SECTION.

*Stated Meeting, March* 11, 1879.

DR. STEPHEN SMITH, CHAIRMAN.

### IMPROVED STEAM ATOMIZER—ANTISEPTIC AIR WITHOUT DISCOMFORT TO THE SURGEON.

THE CHAIRMAN remarked that one of the great difficulties in carrying out the antiseptic method in surgery had been the coarseness of the spray; the size of the drops being such that the instruments and the exposed parts of the operator and the assistants soon became disagreeably moist. He had lately performed an amputation, and the room and all the attendants were thoroughly carbolized by the aid of Dr. Sass's improved steam atomizer, and yet no one was in the least disturbed by the presence of the spray—the operator, assistants, and instruments being as dry at the close as at the beginning of the operation.

DR. LOUIS F. SASS then exhibited and described his improved steam atomizer. Of all the appliances and accessories requisite for successfully carrying out the details of this system, none seemed more necessary than a safe and effectual apparatus that would thoroughly carbolize the atmosphere, and thereby destroy those septic organisms which were the supposed factors in the putrefactive process following amputations and other surgical procedures.

The necessity for an exceedingly delicate antiseptic spray that would cloud the atmosphere was at once apparent; and an instrument that would produce it most effectually, and without interruption, for a period of three hours, and whose operation was not attended with any danger from explosion, seemed a grand desideratum, and ought to meet with general favor. Dr. Sass believed that he had succeeded in devising such an instrument, and thought its price would not prevent it from being within the reach of most practitioners.

In the annexed woodcut its principal features are represented. It consists essentially of a copper tubular boiler, firmly attached to the frame of a spirit-lamp, and is provided with delicately constructed tubes for the atomization, by high steam pressure, of the antiseptic solution. The lamp is balanced on a long central pivot, which is firmly connected with a transverse bar at the base of frame. By this arrangement the lamp accommodates itself to all motions and preserves the same level, thereby preventing spilling of alcohol.

The whole instrument, when connected, measures eleven inches in height and seven inches in diameter.

The instrument thus described can be easily set in operation. By rotating the ivory handle, *D*, the boiler can be supplied with hot water until the liquid reaches the top of the glass gauge, *K*. The lamp, *O*, is now lighted, and in a few minutes sufficient steam is generated for the development of the spray. A steady, uniform, and continuous spray is now seen issuing from each spray-tube, *G*, *G*, its force and volume being regulated by the *ivory screw*, *I*, and the direction fixed by the ivory handles, *H*, *H*.

The instrument now in full operation, and mounted on an adjustable stand, requires no further attention, except, in protracted operations, to replenish the spirit-lamp and the glass receiver holding the solution—a matter easily accomplished, and causing no interruption. The spray thus produced can be thrown a distance of five or six feet, and can be kept in continuous action for nearly four hours without replenishing boiler or lamp.

Dr. Sass remarked that the instrument could be made to serve a variety of purposes. Thus, the physician could use it in many lung and throat affections; as a spray-bath in many skin diseases; for disinfecting rooms and dwellings in cases of contagious diseases, and for the production of a moist atmosphere in membranous croup, etc. Its mechanism was such that the outstanding parts could be detached or swung into positions convenient for packing, so that the instrument could be packed in a box ten by eleven inches, which was neither heavy nor cumbersome for transportation. He believed that the present instrument was reliable, and presented many advantages which made it superior to another instrument which he constructed and described a few years ago, and which had been favorably received by the profession.

### MEDICATION OF THE MIDDLE EAR THROUGH THE EUSTACHIAN TUBE WITHOUT THE USE OF THE EUSTACHIAN CATHETER—ETHEREAL SOLUTIONS.

Dr. Sass also described his method of medicating the middle ear without the use of the Eustachian catheter. By using compressed air, forty pounds to

the square inch, spray could be thrown through the Eustachian tube in the following manner: One of the nostrils was filled with a bulb, to which was attached a spray-tube; the other nostril was held tight by means of the thumb of the operator. The patient was then directed to fill his lungs, close his mouth, and the spray allowed to enter, when it could be seen coming out through the perforation in the tympanum, if one existed, or the crackling noise could be heard

tion of the deep fibrous structure, and made a free incision which gave exit to a watery, bloody discharge. On January 15th erysipelatous inflammation developed and extended up the hand. A local application of carbolic acid was made, and an anodyne given to relieve the pain. On January 18th the pain was very severe, and another free incision was made which gave almost immediate relief. The thumb became club-shaped, and on the 26th of January the distal portion

*A* represents the tubular boiler. The openings of tubes, or fines, are shown on the upper surface. These tubes, four in number, increase the heating surface of boiler, and carry off the surplus heat which would be reflected on alcohol lamp beneath; *B* represents the *safety-valves* and *lid* for relief of boiler; *C*, the *ivory button* for raising boiler from frame of spirit-lamp; *D*, ivory handle for rotating lid and safety-valve to permit filling of boiler; *E*, *ivory screw* for securely fixing lid; *F*, *steam tube* and coupling, made of brass; *G*, *G*, *spray-tubes* made of *silver*, with a lining of *platina*, so that other solutions besides carbolized ones can be used without chemical decomposition; *H*, *H*, *ivory handles* for rotating spray-tubes upward or downward as far as required; *I*, *ivory screw* for fixing spray-tubes and regulating the volume and force of spray; *J*, *J*, rubber tubes connected with spray-tubes, and dipping into medicated fluid; *K*, glass water-gauge (with protecting bars) for showing height of water in boiler; *L*, "*metal band*" firmly attached to frame of spirit-lamp by four perpendicular bars, serves as a flame-protector, and securely holds the boiler in position; *M*, *M*, *M*, *M*, *perpendicular bars* connecting base and metal band; *N*, *base* of frame of spirit-lamp; *O*, *alcohol lamp*; *P*, *metal funnel* for filling lamp; *Q*, *fenestra*, showing height of alcohol in lamp; *R*, *rachet screw* for regulating wick and flame; *S*, movable stage for supporting glass receiver; *T*, *glass receiver* for containing medicated solution; *U*, *wooden handle* for holding apparatus.

in case the drum-membrane was whole. He had employed ethereal solutions of iodoform and carbolic acid with satisfactory results. In one case, suppuration of the middle ear had lasted twenty-five years after small-pox, and by that method of treatment suppuration had ceased and hearing was almost entirely restored.

### REMOVAL OF PUS FROM THE MIDDLE EAR.

Dr. Sass further remarked that he had frequently, in cases in which pus was confined in the cavity of the tympanum, made a perforation in the drum membrane, and in the manner described blown the discharge out into the external auditory canal.

### PARONYCHIA—RESTORATION OF TERMINAL PHALANX.

Dr. F. V. White gave the history of a case as follows: A female patient, æt. 50, called at his office January 13, 1879, and said that she was suffering from some trouble affecting the terminal phalanx of the left thumb. He regarded it as a case of inflamma-

of the last phalanx was removed. On the 31st of January he removed the base of the phalanx. The sore was treated mainly with the local application of carbolic acid, and on February 12th he began treatment with the view to overcome the expanded condition of the end of the thumb. A narrow pad of muslin was placed on the palmar aspect of the thumb, a small pledget of oakum was laid between the pad and the tip of the thumb, and the whole was secured in position by means of a narrow bandage. In that manner a moderate amount of extension was made. Improvement was so favorable, that on February 26th he applied a bandage, then a splint to the palmar aspect, and over the splint a second bandage. The prospect was fair that a good thumb would be the result, and he raised the question, would a new phalanx be formed?

Dr. Sass doubted the formation of a new phalanx.

Dr. Stephen Smith had seen reproduction of a phalanx in three cases.

Dr. Sass regarded these cases as periosteal from the

first; and that the result was destruction of both bone and periosteum.

Dr. Smith stated that the bone-producing function was not destroyed necessarily by periostitis, and cited the femur and other bones; when the bone was small, the periosteum was more liable to be destroyed.

Dr. Sass thought the result of periostitis affecting the terminal phalanges was usually entire destruction of the bone and its periosteum.

The Section then adjourned.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 23 to March 29, 1879.*

Tilton, H. R., Major and Surgeon. Assigned to duty at Fort Riley, Kan., relieving Asst. Surgeon Kilbourne. S. O. 53, Dept. of the Missouri, March 20, 1879.

Ewen, C., Capt. and Asst. Surgeon. Granted leave of absence for twenty days on account of disability. S. O. 45, Dept. of the East, March 24, 1879.

Moseley, E. B., 1st Lieut. and Asst. Surgeon. Granted leave of absence for six months on Surgeon's certificate of disability, with permission to leave the Dept. of the Platte. S. O. 71, A. G. O., March 24, 1879.

DeLoffre, A. A., 1st Lieut. and Asst. Surgeon. Assigned to duty at Jackson Barracks, New Orleans, La., as Post Surgeon. S. O. 47, Dept. of the South, March 19, 1879.

Reed, W., 1st. Lieut. and Asst. Surgeon. Granted leave of absence for one month with permission to apply for an extension of fifteen days. S. O. 34, Dept. of Arizona, March 14, 1879.

Kilbourne, H. S., 1st Lieut. and Asst. Surgeon. Assigned to duty at Ft. Reno, Indian Ty. S. O. 53, G. S., Dept. of the Missouri.

## Obituary.

### GEORGE B. WOOD, M.D.,

PHILADELPHIA.

This eminent physician and medical author died early on Sunday morning, March 30th, at his residence at 1117 Arch street, in Philadelphia, in the eighty-second year of his age. He had been confined to his house for the past four years, and had not been able to leave his bed for the last two years.

Dr. Wood was born in Greenwich, Cumberland Co., New Jersey, on the thirteenth of March, 1797. His parents were Friends, and his great-grandfather, Richard Wood, was a county judge in 1748. The education of Dr. Wood was begun in the city of New York, but was completed at the University of Pennsylvania, where he graduated in the year 1815. Immediately after obtaining the degree of A.B., he entered the office of Dr. Joseph Parrish, of Philadelphia, and took the degree of M.D., in the medical department of the University of Pennsylvania, in the year 1818. He delivered, in 1820, a course of lectures on chemistry, and in 1822 was appointed to the chair of chemistry in the Philadelphia College of Pharmacy. This position he held until the year 1831, when he was made Professor of Materia Medica in the same college. On the 6th of November, 1835, he was elected to the chair of materia medica and pharmacy in the medical department of the University of Pennsylvania. When Dr. Nathaniel Chapman resigned the chair of theory and practice in 1850, Dr. Wood was elected to fill his place. In 1860 he resigned the professorship of the theory and practice of medicine, and was made emeritus, being succeeded in the active duties of the chair by old Dr. William Pepper. In 1869 he was elected a trustee of the University of Pennsylvania. Dr. Wood was attending physician to the Pennsylvania Hospital from 1835 to 1859. In this latter year he was elected president of the American Philosophical Society, which position, together with that of the presidency of the Philadelphia College of Physicians, he held at the time of his death.

His election to the chair of materia medica in the University, in 1835, was productive of new and fresh interest in that branch, in consequence of its being made a demonstrative one in each science pertaining to it. So too, in his hands, the chair of theory and practice became as eminently demonstrative, for he was a very elegant and instructive lecturer. He richly endowed it with all the materials for teaching, and into every department of this varied subject introduced appropriate illustrations in the form of drawings of the pathological lesions of the organs, together with physical apparatus, and casts and models of the various forms of disease. In addition to the creation of an admirable cabinet of drawings and specimens illustrative of the materia medica, Dr. Wood erected a spacious greenhouse, in connection with a garden, and stocked them with many varieties of rare tropical and exotic plants, which he exhibited as illustrations of the subjects treated in his lectures. One of his bequests to the school was a very extensive collection of dried medicinal plants.

Dr. Wood was the author of numerous and valuable books, chiefly relating to his profession, which still rank among medical classics. His first important work, the "Dispensatory of the United States," was written in conjunction with Franklin Bache, M.D., and the original edition was published in Philadelphia in 1833 (8vo, pp. 1073). This work at once stamped him as a man whose research and knowledge were of the highest order. The "Dispensatory" was thoroughly exhaustive in its description of the many medical agents peculiar to American and foreign therapeutics, indicating minutely their various properties and effects. It went through fourteen editions, the last being in 1877 (8vo, pp. 1880). Of it some 160,000 copies have been sold up to the present day. Dr. Wood wrote fully two-thirds of this work. In addition to this book he prepared, conjointly with Dr. Bache, in 1830, a "Pharmacopœia," which was adopted, with slight alterations made under the superintendence of its authors, by the national convention of physicians assembled for that purpose, and which became the basis of the present U. S. Pharmacopœia.

In 1847 he published a "Treatise on the Practice of Medicine" (2 vols. 8vo). It ran through six editions, the last appearing in 1867. He also published, in 1856, a "Treatise on Therapeutics and Pharmacology," which had three editions, the last being issued in 1868 (2 vols. 8vo, pp. 1848), and a volume containing twelve lectures, six addresses, and two biographical memoirs, in 1859. The lectures and addresses were delivered chiefly before the medical classes of the University of Pennsylvania. He also wrote "The History of the Pennsylvania Hospital," "History of the University of Pennsylvania," "Biographical Me-

moir of Franklin Bache," etc. In 1872 these sketches, with the addition of the "History of Christianity in India," "History of the British Empire in India," "History of Girard College," and other papers, were collected into a volume, styled "Memoirs, Essays, and Addresses."

In 1865 Dr. Wood endowed an auxiliary Faculty of Medicine in the University of Pennsylvania, which was composed of five chairs, namely: *First*, Zoology and Comparative Anatomy. *Second*, Botany. *Third*, Mineralogy and Geology. *Fourth*, Hygiene. *Fifth*, Medical Jurisprudence and Toxicology. The incumbent of each chair is required to deliver during the months of April, May, and June, not less than thirty-four lectures, for which he receives $500 a year.

Although retired from active professional service for some sixteen years, the death of Dr. Geo. B. Wood removes from the head of the medical profession in Philadelphia the dignified successor in the long line of worthy names that have given that city its eminence among medical centres. When his stately presence was no longer seen among his younger confrères at the University, in the retirement of advancing years, his energy and interest were still given to the medical school that had been the field of his labors and triumphs.

His funeral took place on Wednesday from his residence. Much of his property is left by his will to the Medical Department and Hospital of the University of Pennsylvania.

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending March 29, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| Mar. 22, 1879. | 0 | 5 | 179 | 1 | 5 | 36 | 0 | 0 |
| Mar. 29, 1879. | 0 | 2 | 210 | 2 | 28 | 31 | 0 | 0 |

FEMALE PEDESTRIANISM AND THE PHILADELPHIA COUNTY MEDICAL SOCIETY.—At a regular meeting of the members of the Philadelphia County Medical Society, held on Thursday evening, March 27th, the following resolutions were offered by Dr. Benjamin Lee, and passed unanimously:

*Resolved*, That this Society desires to express its unqualified condemnation of the barbarities now being inflicted upon women in this city under the falsely assumed name of the exemplification of physical culture and pedestrianism, but, which simply consists in the systematic deprivation of sleep for long periods of time, a form of slow torture not surpassed in the annals of the Inquisition.

*Resolved*, That, in the opinion of this Society, such experiments are not only entirely destitute of scientific value, but are attended with serious risks to the mental sanity, and even to the lives of those upon whom they are made.

*Resolved*, That a copy of these resolutions be forwarded to his Honor the Mayor of Philadelphia, with the suggestion that he shall consider whether the interests of humanity would not justify him in interrupting an exhibition so essentially cruel in its character.

Calling at the Mayor's office to hand him these resolutions, and not finding him in, Dr. Lee left the following explanatory letter:

PHILADELPHIA, March 27, 1879.

HIS HONOR WILLIAM S. STOKLEY: *Dear Sir*—In accordance with a resolution of the above Society, I called at your office to-day to deliver the communication of the Society in person. Failing to meet you, a word of explanation may be necessary. I need hardly say that the exhibition referred to is that now going on at Concert Hall. When it is remembered that its object is to keep a woman without more than ten minutes' sleep at a time for a month, need anything more be said to show its cruelty? If it could be proven upon a prison superintendent that he had inflicted such a punishment upon a convict, the whole community would be filled with horror, and his removal from office would be the least retribution that would satisfy the popular indignation. And yet, the city can sit by and see a parcel of blacklegs inflict this torture upon a couple of weak women for the sake of filling their own pockets, and utter no word of remonstrance. It may not be known to your Honor that these poor creatures are actually forced and dragged round the course in their sleep. I am credibly informed that one of them is already suffering in her health in a way that woman is most apt to do from over-physical exertion. If brutes were treated in this manner, the Society for the Prevention of Cruelty to Animals would interpose to protect them and to punish their tormentor. The plea that these women do it of their own free will is too shallow to weigh with any one who knows what women are. They would neither of them take another step were they not compelled to. I trust your honor will, at least, consider this matter of sufficient importance to make it a subject of investigation.

COMPLIMENTARY DINNER TO PROFESSOR SAMUEL D. GROSS.—The medical profession in Philadelphia announces its intention of giving a complimentary dinner to Dr. S. D. Gross, Professor of the Institutes and Practice of Surgery in Jefferson Medical College, on Thursday, April 10th, at 7 P.M., at the Union League Club House, in Philadelphia. The occasion is designed to commemorate the fifty-first year of Dr. Gross's entrance into practice. The Committee of Invitation consists of Drs. Thomas G. Morton, D. Hayes Agnew, Richard J. Levis, and J. Ewing Mears, Chairman. Thus far some seventy or eighty of the prominent physicians and surgeons of Philadelphia have signified their intention of being present at the dinner, as also several invited guests from New York, Cincinnati, Boston, and Chicago.

DR. PAUL F. MUNDÉ has been appointed one of the obstetric surgeons to the Maternity Hospital on Blackwell's Island.

### BOOKS RECEIVED.

PHYSIOLOGICAL THERAPEUTICS. By THOMAS W. POOLE, M.D., Toronto, 1879.

EXAMINATION OF THE EYES. By DR. E. LANDOLT. Translated by S. M. Burnett. Phila.: D. G. Brinton, 1879.

DISEASES OF LIVE STOCK. By LLOYD V. TELLER, M.D. Phila.: D. G. Brinton, 1879.

MODERN SURGICAL THERAPEUTICS. By GEO. H. NAPHEYS, M.D. Sixth Edition. Phila.: D. G. Brinton, 1879.

# Original Communications.

## ON GRITTI'S SUPRA-CONDYLOID AMPUTATION OF THE THIGH.

By ROBERT F. WEIR, M.D.,

SURGEON TO THE NEW YORK AND ROOSEVELT HOSPITALS.

Read at the meeting of the Medical Society of the State of New York, Feb. 5, 1879.

The advantages that have led to the general favor with which amputation at the knee-joint is at present regarded are, as stated by Velpeau and others:

1. The safety of the operation—on the accepted dictum that for every inch nearer the trunk the greater is the danger.

2. The capacity afforded by the expanded end of the femur to sustain the weight of the body or to bear the pressure of an artificial limb, and thus to meet the requirements of both the rich and the poor man; in contradistinction to the fact that in amputations through the thigh the support of the body is of necessity placed at or near the tuberosity of the ischium. With this goes the removal of the cicatrix from the face to the posterior aspect of the stump; and

3d. The preservation of the natural motions of the limb, by reason mainly of the non-interference with the attachments of the adductor muscles.

As this excellent amputation became more and more accepted, and chiefly in this country by the efforts of Dr. Markoe, of the New York Hospital, certain minor points were also determined, one of which is, that nowadays in its performance, the surgeon does not deem it necessary to remove the encrusting cartilage from the femur, but covers it at once by his flap, knowing that in the majority of instances he will have no trouble resulting, and that, even should necrosis and exfoliation of it occur, it will be but to a limited extent, and without much detriment to the healing process. The experience of the earlier performers of disarticulation at the knee-joint, and who in many cases removed at the same time a slice of the femur, demonstrated that by the section of the condyles but little, if any, additional risk to life was encountered; for Brinton, in his exhaustive paper on "Amputation at the Knee-joint," * gives the mortality as 28.12 per cent. when the condyles were sawn off, and 27.84 when they were left untouched. In the knee-joint amputations, however, whether done by the usual method of the long anterior and short posterior flap, or by the use of the lateral flaps of Rossi and Stephen Smith,† the line of incision, in order to cover the expanded end of the femur, necessarily descends quite a distance on the leg—in the first method fully a hand's breadth below the patella, and by the second to a point even lower.

Hence, the natural endeavor of surgeons has been to devise or practise a mode of amputation that would preserve as far as possible the good points of the knee-joint amputation, and at the same time admit of a smaller flap; or, in other words, would allow of the benefits of a disarticulation in conditions that would otherwise necessitate amputation higher up through the thigh. Two such methods have, in consequence, been made known to the profession; and, though chronologically the latest in this respect, yet, in reference to the actual date of its first performance (1846), as well as to the fact that it is already well known to both American and English surgeons, the procedure of Mr. Henry D. Carden, of Worcester, England, first deserves attention. Mr. Carden * proposed in 1864 an amputation of the thigh through the condyles, covering the sawn femur by a long anterior flap.

The operation consists (see diagram No. 2) in reflecting a rounded or semi-oval flap of skin and fat from the front of the joint, dividing everything else straight down to the bone, and sawing the bone slightly above the plane of the muscles, thus forming a flat-faced stump, with a bonnet of integument to fall over it. The operation is simple, and is performed easily in two ways: the operator, standing on the right side of the limb, seizes it between his left forefinger and thumb at the spots selected for the base of the flap; enters the point of his knife close to his finger, bringing it round through skin and fat, below the patella,† to the spot pressed by his thumb; then, turning the edge downward at a right angle with the line of the limb, he passes it through to the spot where it first entered, cutting outward through everything behind the bone. The flap is then reflected, and the remainder of the soft parts divided straight down to the bone; the muscles are then slightly cleared upward, and the saw is applied. ". . . Or the flap may be reflected first, and the knee examined, particularly if the operator be undecided between resection and amputation. In amputating through the condyles, the patella is drawn down by flexing the knee to a right angle before dividing the soft parts in front of the bone; or, if that be inconvenient, the patella may be reflected downward." ‡

Carden, in his paper, presented 31 cases wherein this operation had been performed through the femoral condyles, of which 4 were for primary injuries, with 1 death, or 5 deaths in all. His method, he also shows, is of use in other limbs, and he gives 32 instances of its varied applicability.

This is an admirable method, and has met with the commendation of surgeons both here and abroad. Syme says that the safety of it mainly depends upon the dense bone and medullary texture not being concerned, and states, moreover, that Lister drew his attention to this circumstance. He also adds that the resulting stumps in his seven cases were comfortable and serviceable.

Lister and Spence have both somewhat modified Carden's operation, in making the anterior flap to consist, instead of integument alone, of a certain amount of muscular tissue cut from above the patella (which in all of these condyloid amputations hitherto spoken of is sacrificed), and also in having a short posterior flap. Mr. Spence carries the section of the femur well up in the shaft beyond the condyles. In his words,§ it is done as follows: "supposing that the right thigh is to be amputated, the surgeon, standing on the inner side of the limb (so as to be able to grasp the distal portion of the bone when sawing), inserts his knife deeply pretty far back on the outside of the thigh, and about three inches above the patella. He then carries the knife downward through the skin and fascia to a level with the lower edge of the patella, and, after cutting with a gentle curve across the front of the limb, he carries the incision up the inside of the thigh to a point opposite the place where he commenced it. While he is making the incision,

* Am. Jour. Med. Sciences, April, 1868.
† Ibid., Jan., 1870.

* Br. Med. Journal, April 16, 1864.
† *i. e.*, to level of tuberosity of the tibia. See Carden's paper.
‡ Stimson: Manual Operative Surgery, p. 127.
§ Spence's Surgery, Vol. II., p. 760.

his assistant retracts the skin and fascia, and when by a few touches with the knife the muscular tissue of the thigh is exposed, the surgeon cuts obliquely through it to the bone, so as to dissect up the flap from the femur; then, applying the edge of his knife to the soft parts on the posterior aspect of the limb, at least two inches lower than the level of the base of his flap, he cuts them with a sweep obliquely to the bone. The assistant next retracts the soft parts, while the surgeon clears the bone for nearly two inches with a circular movement of the point of his knife; the femur then, being elevated so as to project it fully, is sawn through close to the soft parts, immediately above its condyloid portion. . . . The flap folds over the face of the stump, and is then adjusted and retained by sutures."

Lister's modification consists in making a transverse cut across the leg on a level with the tubercle of the tibia, the extremity of the incision being prolonged obliquely downward for half an inch, so as to obviate subsequent notching: The knife is then passed beneath the limb, and a slightly convex short skin-flap marked out by joining the two oblique cuts. The limb being now raised, this posterior flap is to be reflected together with the integument of the knee, as in a circular amputation, until the hamstring tendons are exposed, when they are to be divided by a circular sweep, passing also above the patella and through the muscle on the front of the thigh. The saw is to be applied immediately above the articular cartilage of the knee, and the condyle divided.*

The second method for accomplishing a supra-condyloid amputation of the thigh, and the one to the consideration of which this paper is mainly devoted, is that suggested by the Italian surgeon, Dr. Rocco Gritti, of Milan, in 1857. Deriving the idea from Pirogoff's amputation at the ankle-joint, Gritti proposed not only to cut through the condyle, but also to remove the cartilaginous surface of the patella by a saw, and then to apply it to the end of the femur in order to obtain bony union between these two surfaces. He had, at the time he published this brochure, not done the operation, which remained untried in his own land until 1866, when it was performed by Melchiorj, of Salò; but in Russia it was favorably received, and was first performed, it is said, by Sawostitzki,† early in 1862, and subsequently by other surgeons of that country and of Germany. But Neudorfer‡ claims that he performed the same operation in 1859, as an original idea.

Sédillot attributes the operation to the ingenuity of Szymanowski,§ who in 1860 published an account of the method of its performance; but this distinguished surgeon (alas! too early cut off) had only worked out the operation on the cadaver. During the military campaigns that ensued in the next few years, this operation was employed a number of times, but with unsatisfactory results (in several cases, indeed, it was done for injuries that now would be thought sufficient to call for a higher amputation).

In America, during our late civil war, a somewhat similar operation was resorted to by Dr. J. W. S. Gouley,‖ at that time an assistant surgeon in the U. S. Army, on a soldier who had been wounded at Fredericksburg, December 13, 1862, by a musket-ball, which entered the outer condyle of the femur, and escaping posteriorly in the middle of the lower third of the thigh, left the bone much comminuted at its exit. The limb was amputated the next day, at one and seven-sixteenth inches (as determined by subsequent measurement) from the articular surface of the condyles, and the sawn surface of the patella applied to the femur. Sloughing came on in the stump with concurrent secondary hemorrhage, which necessitated reamputation on the ninth day. The patient died four days later. The interesting specimen of this operation, believed by the able operator to be original, is preserved in the Army Medical Museum at Washington, D. C., and is numbered 536.

In 1870 Gritti's operation became better known to the English-speaking part of our profession, by means of a paper read before the Medico-Chirurgical Society of London, by Mr. William Stokes,* of Dublin, under the title of "Supra-Condyloid Amputation of the Thigh." Up to this time it had been performed, besides the surgeons already mentioned, by Wahl, Michenewski, Hofnokl, Linhart, Simon, Szymanowski, Pairkt, Spanner, Wagner, Fuxs, Schuh, Beck, Middeldorpf, and a number of others on the continent, and once in England by Mr. Rivington,† in 1864.

Mr. Stokes set forth the advantage of the operation in an extremely clear manner, and presented two cases in which he had most satisfactorily used it, and subsequently in other papers‡ contributed the results of his further experience in this amputation, together with that of his surgical brethren.

He, however, stated that his method differed from that of Gritti's in that: 1st. The femoral section is made in all cases at least half an inch (sometimes as high as three-quarters of an inch) above the antero-superior edge of the condyloid cartilage (and, therefore, higher up than suggested by Gritti).

2d. That in all cases the cartilaginous surface of the patella is removed.

3d. That the flap is oval and not rectangular.

4th. That there is a posterior flap fully one-third the length of the anterior flap.

In the two latter points Mr. Stokes is undoubtedly right, and the shape of his flap is probably an improvement on the original one of Gritti, inasmuch as this change permits a covering of the bone with the least sacrifice of the length of the limb. Indeed, Stokes himself elsewhere admits the advisability of even giving more length than this to the posterior flap. In respect, however, to the first two points upon which he bases his claim to an improvement on Gritti's amputation, and which is being generally known by his name, I must in justice to the Itatian surgeon ask attention to an extract from Gritti's paper on this subject.§ For it is evident from Mr. Stokes's words that he has not been able to obtain access to this article, or to that of Melchiorj ‖ (whom he credits with the performance of the operation in 1851); and it will be seen by this, too, that Gritti had thoroughly worked out the details of the operation proposed by him, and that he had fairly covered the points claimed by Mr. Stokes in his paper.

Under the heading of "Rules to Observe," Gritti says: "1st. The operator in making his flap must take the precaution to remove all the adipose tissue that lies

* Heath: Operative Surgery, part v., Pl. 19, p. 122.
† St. Petersburg med. Zeitschr., Bd. VIII., No. 1.
‡ Neudorfer, Handbuch der Kriegschirurgie, 1864.
§ Prager Vierteljahrschr., Vol. I., p. 78.
‖ Boston Med. and Surg. Journal, Feb. 26, 1863.

* Trans. Med.-Chir. Soc., Vol. 53.
† London Hosp. Reports, Vol. II., p. 395.
‡ Dub. Journ. Med. Sciences, Dec., 1872, and Aug., 1875.
§ Rocco Gritti: Dell' amputazione del femore al terzo inferiore e della disarticulazione del ginnocchio. Valore relativa di cadauna coll' indicazione di un novo metodo denominato amputazione del femore al condilli con lembo patellare, Milano, 1857.
‖ Giovanni Melchiorj: Caso de amputazione sopra condillodea del femore col metodo del Doct. Rocco Gritti. Milano, 1867. From this it will also be seen that the title of the operation is the same as that chosen by Mr. Stokes, as distinctive of his operation.

under the ligamentum patellæ in such a manner as to do as little violence as possible to what is left of the ligament. 2d. That care must be taken to remove entirely all the cartilage covering the internal surface of the patella, because this bone presents on this side a vertical elevation; the cartilage is sometimes not completely sawn off, and this is especially so at the side. Hence, if accidentally a small part of the patella remains covered by cartilage, it is necessary to cut it out by a knife so as to reach the bony structure. 3d. The section of the femur ought to be made at the line of junction of the epiphysis with the shaft, which

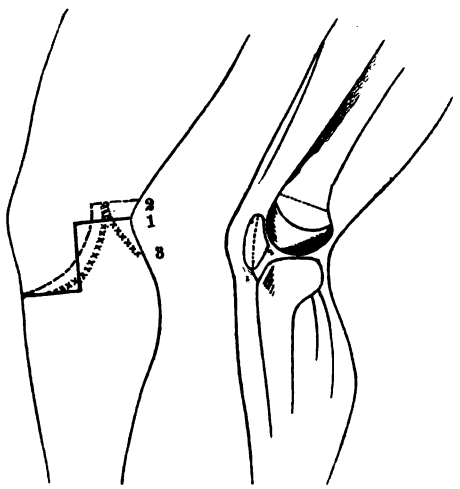



Fig. 1. Fig. 2.

—— 1. Gritti Incision.
----- 2. Carden "
****** 3. Stokes "

corresponds anteriorly where the articulating cartilage ceases to cover the bone, or the section must be made considerably higher up in the shaft. If the section take place in a plane lower than the superior margin of the patella, it is impossible to turn this bone down on the sawn face of the femur, and so the operator would find himself in no less a dilemma than a surgeon would be, who, following Pirogoff in amputating the foot, should saw the heel too far forward or the malleoli too low down. Whenever this happens in an operation another layer of the femur must be removed until the point indicated is reached."

As to how high up one can divide the femoral condyles and still preserve a vascular spongy tissue to oppose a similar one on the patella, the researches of Michenewski * in 1866 are confirmed by those of Stokes. According to the former observer, the medullary cavity of the femur is in the child 2m. from the anterior edge of the cartilaginous junction, and in the adult 4½m.; and by Stokes's measurements, more accurately made, as a repetition by myself has shown, the distance is in the majority of cases in the adult about three-fourths of an inch. Lücke has, however, observed, when amputating for knee-joint disease, that from osteoporosis the medullary canal is apt to reach lower down than in health.

The operative procedure evolved by Gritti, and resorted to by most of the German and Russian surgeons, is as follows:

† "The incision of the integuments (see diagram No. 1), beginning at the upper edge of the head of the fibula is continued transversely across the leg, about one inch below the lower border of the patella, to internal tuberosity of the tibia. From extremities of this incision a vertical cut is made upward, on each side of the limb, to the level of the middle of the patella. Then the flap thus outlined is dissected up to the posterior edge of the patella; the joint is opened by cutting through the ligamentum patellæ close to the bone. The flap is then turned back without disarticulating at the joint, as I did in my first trials on the cadaver, and . . . a segment of the patella, about two lines in thickness, is taken from its internal surface by means of a little bow-shaped saw.* This is done in the following manner: the left hand is used to hold the patella firmly by means of a napkin to prevent slipping, and with the right, after exposing the cartilaginous junction at the edges, the section is made with the saw. The posterior flap is then made by an incision direct to the bone, and connecting the upper extremities of the lateral cuts. This flap is then separated from the femur for a short distance, and the periosteum having been cut through with an amputating-saw, the limb is removed. The operation is ended, after ligating the vessels, by placing the sawn bony surfaces together, and securing the edges of the flaps by several interrupted sutures; these are strengthened by several strips of adhesive plaster, disposed in such a manner as to exert a moderate pressure on the patella, just sufficient to maintain the two bones in contact."

Inasmuch as after this operation, as well as after disarticulation at the knee, an abscess is apt to form in the remaining synovial cul-de-sac, it has been advised by Szymanowski to dissect this out; but in reality this step is inadvisable, except when Gritti's operation is resorted to for a disease of the joint itself. To avoid the occurrence of such a collection of pus, it is only necessary, as personal experience has proven, to cut across the synovial ligaments that stretch out from the patella, and to insert a drainage-tube on each side to the top of this pouch, in addition to the usual tube passed across the stump.

Stokes,† in his paper, made the following modification of the flaps: "An incision was made with a strong scalpel, beginning one inch above the external condyle, and carried merely through the integument downward and forward to the tubercle of the tibia, and then carried upward and backward to a corresponding point on the inner side of the thigh (see diagram No. 3). The knife was then closely applied to the edge of the integuments, the deeper structures were separated, and the flap containing the patella rapidly dissected back to a point as high as where the incisions were originally commenced. The posterior flap, at least one-third in length of the anterior flap (subsequently he advised it to be even longer), was then made, the first incision, or that through the skin, being so curved that the convexity should look backward. The deeper structures were then divided with an ordinary amputation-knife, and the rest of the posterior flap completed by the instrument. A transverse section of the femur was then made, commencing half an inch above the commencement of the antero-superior edge of the condyloid articular cartilage. The removal of the articular surface of the patella constituted the last stage of the operation, and was not attended with any difficulty." "This section," he says further, "is most

* Wahl: St. Petersburg. med. Zeitschr., Vol. XI., 1866.
† Gritti: Op. cit., p. 16 et seq.

* Szymanowski recommended later the small metacarpal saw, now generally used.
† Op. cit., pp. 181-2.

rapidly accomplished with one of Langenbeck's fine section-saws."

Heath * recommends that an assistant should, until the saw has made for itself a sufficiently deep groove, hold the patella firm by grasping it transversely with a lion forceps.

I beg now to present two cases in which I employed this method of amputation, and to state that it was in accordance with the directions of Stokes that the second operation was performed.

CASE I.—*Epithelioma of the Leg—Gritti's Supra-condyloid Amputation of the Thigh—Recovery.*

P. C., aged thirty-two, was admitted into the Roosevelt Hospital, November 19, 1876, for caries of the lower portion of the tibia of many years' duration. The diseased bone was gouged out with apparent benefit, but subsequently, about January, 1877, the granulations became sluggish and hard, and eventually took on an epitheliomatous appearance, which condition was confirmed by a microscopical examination.

The disease gradually extended, with its usual symptoms, until the posterior border of the tibia became involved, and a false point of motion ensued. Upon the patient's consenting to the amputation proposed, the limb was removed, May 14th, under the carbolic spray. It was intended to have removed the limb at the knee-joint, but, owing to the cloud of carbolic mist (it being the first amputation performed under Lister's method), the posterior flap was cut too short to properly cover the femur. When this was ascertained,† the femoral condyles were sawn off about half an inch above the articulating surface, and the patella deprived of its cartilage by a flat cutting-forceps. This done, the synovial ligaments on each side of the patella were divided to allow egress of the secretions from the synovial pouch above. After the arrest of the hemorrhage by catgut ligatures and the insertion of the drainage-tubes, the wound was closed by sutures, and the protective and other antiseptic dressings applied. Nearly complete union by first intention occurred, and the patient was out of bed by the eleventh day, and was discharged from the hospital June 19th. The stump was excellent in shape, with the patella united to the face of the femur, and capable of bearing the strongest pressure, both gradual and sudden, without giving rise to the least pain. He has since worn an artificial limb with ease and comfort. The movements of the thigh were preserved to an unusual degree.‡

In the second case the result was not so favorable, for the patella slipped from its position, and rode on the anterior surface of the femur, just above the end of the bone, where it afterwards became fixed by fibrous adhesions. I was not then acquainted with the procedure of Sawostitzki,* who fastened the patella to the femur by a steel pin thrust through the anterior flap; nor with the suggestion of Shiffer† (1867), to fasten the remains of the ligamentum patellæ to the femur by means of sutures, preferably of catgut (Stokes, 1872). When it was ascertained that the patella was not likely to hold its place, it was my intention to divide the quadriceps tendon (as was done at the time of operation by Szymanowski in 1868), but the amount of inflammation that supervened decided against interference.

CASE. II.—*Epithelioma of the Leg—Gritti's Amputation—Slipping of the Patella—Recovery.*

T. M., aged fifty-four, was admitted to the Roosevelt Hospital, June 6, 1877, with an epithelioma of the left leg of nine months' duration, which had attacked an extensive citatrix, the result of an injury in early life. The ulcer, at the date of his admission, was some two and a half inches in diameter; pain severe. Slight enlargement of inguinal glands. Amputation June 21st. It was determined to avoid disarticulation at the knee, as the flaps would of necessity encroach upon some of the old though yet unaffected cicatricial tissue. Hence a supra-condyloid amputation was done by a long anterior and short posterior flap (after the plan of Stokes), removing the limb at the joint after cutting through the ligamentum patellæ, and subsequently sawing off the condyles a little more than half an inch above the line of the cartilage, and also dividing the bony surface of the patella by cutting-forceps, which had acted well in the previous case. Considerable oozing of blood followed, due probably to the Esmarch's bandage; but after arresting this as far as practicable by ligation of all visible bleeding-points, drainage-tubes were inserted into the synovial pouch, which had been laid open, and the wound duly closed. Sponges wrung out of a 1 to 20 carbolic solution were compressed over the end of the stump, and over these the usual antiseptic dressings were applied. Considerable muscular twitchings occurred, and on redressing the stump the next day the patella was found to have slipped up on the front of the femur. The antiseptic dressings by their bulk neutralized all the attempts to replace the patella by bandaging the thigh from above downward, and on the fourth day the odor, with swelling running up the outer and posterior aspect of the thigh, showed that the antiseptic dressing had failed. This swelling ran along the divided external hamstring,‡ and by introducing a director to its full length, and cutting down upon its end, a counter-opening was made which permitted the track to be thoroughly washed out with a 1 to 20 carbolic solution, as was also the stump. By the next day all inflammatory symptoms had subsided, the odor had disappeared, and thereafter the patient did well, most of the stump healing by granulation. He was discharged from the hospital September 4th, with a very serviceable stump, capable of bearing a considerable amount of pressure, but not so much as in the previous case.

In endeavoring to appreciate the real value of this method of amputation, I have been able to collect up to the present time some eighty-three cases in which it has been resorted to. Of these, 7 occurred in mili-

* Op. cit.

† Recently the same mishap, occurring to Mr. Bryant, of Guy's Hospital, London, was remedied in the same way, *i. e.*, by the performance of Gritti's operation; see Lancet, Jan. 4, 1879.

‡ I have, since the reading of this paper, received the following letter:

BRIDGEPORT, CT., Feb. 9, 1879.

MY DEAR WEIR:—I regret exceedingly that I forgot to see Cook for you immediately upon my return from New York, but as soon as I remembered your request I hastened to see him.

He has fitted up for himself a stiff leg, which he likes better than the one jointed at the foot. He has no trouble from the amputation whatever, either at the extremity of the stump or elsewhere. His weight has increased from 170 to 202 pounds.

For my edification he danced the "Pinafore" hornpipe without crutch or cane—"Not an ache or a pain;" he says I shall tell you. When you are here he wants to see you. Yours truly,

GEO. L. PORTER.

* Moskovs. Med. Gazeta, 1862. Vol. V.

† Schmidt's Jahrbüch., Vol. 136.

‡ This extension of inflammation along the sheaths of tendons after knee-joint amputations, though spoken of by German surgeons, has only, so far as I am aware of, been alluded to in the vernacular, by Brinton, of Philadelphia.

tary surgery,* with only one recovery. I have thought it advisable, for obvious reasons (one of which has already been mentioned), to leave these out of the list, as they are too few for statistical purposes, and to consider only the 76 remaining cases. The mortality of these is only 22, or 28.94 per cent., comparing in this respect very favorably with that met with in knee-joint amputations, in which it is, as before stated, between 27 and 28 per cent., while the statistics of the Surgeon-General's Office show that in military surgery the mortality is 50 per cent.

The question of mortality after amputations has, however, since the use of carbolic acid, drainage, rest, etc., been so much altered that such figures are now misleading. An amputation, such as the one under consideration, should under the antiseptic treatment have a death-rate of not more than 5 to 10 per cent.† Of more importance at present is, therefore, the efficiency of a limb after such an amputation as this. Bearing strongly on this point is the fact that out of 44 cases, where the condition of the stump is stated, in 14 it is mentioned that a good or excellent stump resulted, in 22 it is explicitly stated that the patella had united to the femur, and in 8 only it is noted that the patella had slipped up on the femur. In 3 cases, Richardson's, Szymanowski's, and Pairkt's—and probably there have been others, for the details of many of the operations are very imperfect—there was a primary divison of the quadriceps tendon resorted to, which in two of them not only left the patella safely *in situ* against the sawn femur, but also in one it is remarked that it was attended by no loss of power in the limb. These facts must certainly outweigh the theoretical objections that have been raised against the operation, such as: 1st. That the patella normally is a sensitive bone, and is only called upon to bear the weight of the body in such short acts as kneeling in prayer, and hence is unfit to be placed at the end of a stump. Szymanowski advised relative to this point, and to obviate the risks of inflammation that might arise from the patella in its new position, that the pre-patella bursa should be removed. It need only be said that all these objections have been proved by experience so far to be chimerical.

2d. That the patella cannot be held in its new position. Again experience refutes this: in 36 instances out of 44 the patella did not slip, and the aim of the operation was entirely accomplished. With the aid of sutures, or by tenotomy in obstinate cases, the failures can still further be lessened; or, should it occur, all the advantages that accrue to a Carden's amputation will still belong to the stump. This point in favor of Gritti's operation has been made by several of the writers on this subject, and is, in my mind, a strong one in its support.

The testimony of those who have practised the operation is decidedly in its favor. Wheelhouse,‡ of Leeds, considers "the supra-condyloid amputation to possess advantages which render it decidedly superior to any other known method. In no instance has the patella slipped from its position; in all a good cushion covered with well-organized skin, and a limb (or rather stump) endowed with more than usual freedom of movement, has been the result." Jessop,§ another English surgeon, says that "the supra-condyloid amputation fully maintains its repute here (Leeds). Whenever a suitable case presents itself, I prefer it to Carden's."

Stokes* states that, "of the amputations in the neighborhood of the knee, the supra-condyloid amputation undoubtedly affords the most satisfactory results, and, more important than all, is the operation of its kind which is attended with the minimum of risk to the patient's life.

Schuh,† who had in 1864 then operated twice by this method, remarks that a stump is formed whose cicatrix is situated posteriorly and above, and is not exposed to pressure, while the patella, which is the main point of support at the end of the stump, bears pressure exceedingly well. Linhart,‡ who resorted to this amputation five or six times, says that the stump after Gritti's amputation is far preferable to the one remaining after amputation through the lower third of the thigh (Bruns's or Carden's), because, when the patella is united to the femur, the patient can use the false limb soon after amputation of the leg. Lücke,§ who had but one successful case ‖ out of four in military surgery, recommends the operation as a worthy one, notwithstanding his want of success.

It is now only necessary to briefly indicate in what cases the operation is suitable. Although Gritti himself, with some other surgeons, deemed the amputation one that would supplant that formed through the knee-joint, yet time has not yet, and will in all probability *not*, confirm such views. It has *not* been the purpose of this article to indicate such a claim, but only to present the supra-condyloid amputation of the thigh, with a patella flap, as a substitute in many instances for that of Carden, or for an amputation higher up in the thigh. The applicability of Gritti's amputation has already been alluded to in the earlier portion of this paper, and it is only necessary therefore to express the indications for its use somewhat more in detail. It can be resorted to evidently in cases of extensive caries or necrosis of the bones of the leg, and particularly of the head of the tibia; in compound fractures or severe lacerations, etc., demanding amputation; for tumors condemning the limb—wherein, in all these conditions, a sufficiently ample covering cannot be obtained for a disarticulation. A reference to the annexed table of cases of Gritti's amputation, which has been collected from all available sources, will show still better the range of its applicability. For gunshot wounds or compound fractures involving the condyles of the femur, its practicability is yet undetermined, and time will probably record an adverse judgment against it in such cases. For diseases of the knee-joint it affords a better operation, in my judgment, than disarticulation, which has lately been revived. When Gritti's amputation is resorted to for a chronic arthritis, it is necessary to carry out Szymanowski's plan of dissecting out the synovial pouch, so that, with the bone-sections, the joint is entirely extirpated.

In conclusion, I beg to say that the results of the investigation of so many cases of this operation have only confirmed the satisfactory impression that a single case of complete success gave rise to, and it is believed that further experience will only reiterate the good reports that have lately been made of this amputation by Dittel, Stokes, Wheelhouse, Teale, Albert, Melchiorj, and others.

* Lücke, 4 cases and 1 recovery; Beck, 3 cases, all died.
† Results Antiseptic Surgery, N. Y. Med. Journal, Dec., 1877, and Jan., 1878.
‡ Dub. Jour. Med. Sciences, Aug., 1875.
§ Idem.

* Dub. Jour. Med. Sciences, Aug., 1875.
† Wien. med. Wochenschr., Vol. XIV., 1864.
‡ Wien. med. Presse, 1865, pp. 4-61.
§ Schmidt's Jahrbücher. Vol. 124, p. 270.
‖ The injury in two of his cases consisted of a fracture of the femoral condyle, with lodgement of the bullet; and in another the joint was also involved, and in the fourth it is not clearly stated.

## GRITTI'S SUPRA-CONDYLOID AMPUTATIONS OF THE THIGH.

| Surgeon. | No. of amputations. | For what disease or injury. | Died. | Cause. | Recov'd. | Remarks. | Reference. |
|---|---|---|---|---|---|---|---|
| Neudorfer.... 1859. | 1 | ? | . | ... ..... | 1 | ..... | Handbuch der Kriegschirurgie, 1864. |
| Sawostitzki... 1862. | 1 | Compound fracture of leg, three inches from knee-joint. | .. | ..... | 1 | Patella drawn up; stump a very good one. | St. Petersburg med. Zeitschr., VIII., 1, 1864. |
| Szymanowski. 1863. | 1 | Gunshot wound of leg. | 1 | Gangrene. | .. | Tenotomy of quadriceps; bursa removed; patella in place. | Prag. Vierteljahrschr., XXIII., 1866. |
| " | 1 | Elephantiasis. | .. | ..... | 1 | Good stump. | Idem. |
| " | 1 | Secondary to a Pirogoff. | 1 | Tuberculosis. | .. | Patella in position; bony union; no tenotomy. | Idem. |
| " | 1 | Malformed limb. | 1 | Pyæmia. | .. | No tenotomy; bursa extirpated. | Idem. |
| Wahl..... 1863. | 1 | Elephantiasis of right leg. | .. | ..... | 1 | Patella adherent to femur; good stump. | St. Petersburg med. Zeitschr., VIII., 1, 1864. |
| " ..... | 1 | Compound fracture of leg. | 1 | Pyæmia. | .. | ..... | Idem. |
| Linhart..... 1864. | 5 | Necrosis of tibia (1); others not stated. | 3 | ..... | 2 | One patella adherent; in one it was not, but not drawn up; but in both it was as sensitive as in normal position. | Operationslehre, 1867. |
| Rivington .... 1864. | 1 | Compound fracture of leg. | 1 | Pyæmia. | .. | ..... | London Hospital Reports, Vol. II. |
| Simon..... 1864. | 1 | Pseudo-arthrosis. | .. | ..... | 1 | Good stump. | Deutsche Klinik, 1866, Nos. 29, 34. |
| " | 1 | Osteomyelitis, etc. | 1 | Pyæmia. | .. | Patella retracted. | Idem. |
| Wagner..... 1864. | 1 | Chronic ulceration of leg. | .. | ..... | 1 | Patella slipped up. | Schmidt's Jahrbücher, Vol. CXXIV., p. 270. |
| Schuh..... 1864. | 1 | Medullary cancer of leg. | 1 | ..... | .. | ? | Wien. med. Wochenschr., Vol. XIV., 1864. |
| Steinlechner.. 1864. | 1 | ? | .. | ..... | 1 | Good stump; can bear any amount of pressure. | Allg. med.-chir. Zeitg., 1864, p. 12. |
| Michenewski.. 1864. | 1 | Gangrenous ulcers. | .. | ..... | 1 | Patella united to femur. | St. Petersburg med. Zeitschr., XI., 1866. |
| " .. | 1 | Compound fracture of leg; gangrene. | 1 | Septicæmia. | .. | Patella in situ; bursa extirpated. | Idem. |
| " .. | 1 | Compound fracture of leg. | 1 | Hemorrhage. | .. | Patella in situ and firm. | Idem. |
| Melchiorj..... 1866. | 1 | Gunshot fracture of leg. | .. | ..... | 1 | Patella firmly united. | Annali universali di medicina, p. 368, 1867. |
| " | 1 | Gunshot wound of knee-joint, and injury to popliteal artery and vein. | .. | ..... | 1 | Good stump; could bear full weight of body on it. | Annal. nuov. di med., 1874. |
| Pairkt..... | 1 | Necrosis of tibia. | .. | ..... | 1 | Bursa extirpated, and tenotomy. | Allg. Militair Ztg., I., 1866. |
| Spanner..... | 1 | ? | 1 | ..... | .. | ? | Idem., No. 14, 1867. |
| Hofnokl..... | 1 | Compound fracture of leg. | 1 | Pyæmia. | .. | Bony union progressing. | Wien. med. Presse, IX., 3, 1868. |
| Fux..... | 1 | Gangrene of leg. | 1 | ..... | .. | Patella in situ, and united to femur by fibrous tissue. | Archiv f. klin. Chirurg., VIII., 1868. |
| Wolf ..... | 2 | ? | 2 | (1) Hemorrhage. (1) Pyæmia. | .. | ? | Berl. klin. Wochenschr., No. 40. 1866. |
| Shiffer ..... | 1 | Compound fracture of upper end of tibia. | 1 | Pyæmia. | .. | Patella slipped up. | Schmidt's Jahrb., Vol. CXXXVI., 1867. |
| Stokes,..... 1870. | 10 | Necrosis or caries of leg (3), compound fracture (1), disease of knee-joint (1), others not stated. | 1 | ..... | 9 | In all the recoveries there were good stumps, and patella had not slipped and had united to the femur. | Guy's Hospl. Reports, Vol. XXIII., 1878; Med.-Chir. Trans., Vol. LIII.; Dub. Journal Med. Sciences, 1872-73. |
| Jessop..... .. | 5 | ? | 1 | .... ..... | 4 | Three had good stumps, no slipping of patella; one patella slipped up; one died, but not from the amputation. | Dub. Journ. Med. Sciences, Dec., 1872. |
| Teale. ..... | 2 | ? | .. | ..... | 2 | Good stumps. | |
| Wheelhouse... | 4 | ? | .. | ..... | 4 | No slipping; union of patella to femur; in all a good cushion. | Idem. |
| Bryck ..... | 1 | Cancer of leg. | .. | ..... | 1 | Patella united to femur; good result every way. | Archiv f. klin. Chirurg., XV., 1873. |
| Denzel ..... | 1 | ? | .. | ..... | 1 | Re-amputation required. | Idem. |
| Richardson ... | 1 | ? | .. | ..... | 1 | Tenotomy of quadriceps; patella united to femur; pressure well borne. | Dub. Journ. Med. Sciences, 1871, p. 280. |
| Adelman ..... | 1 | ? | .. | ..... | 1 | Resection of condyles required by swelling of stump. | Schmidt's Jahrb., Vol. CLXVII., 1875. |
| Mazzoni..... | 1 | Giant-cell sarcoma of leg. | 1 | Septicæmia. | .. | Septicæmia attributed to use of Esmarch's bandage. | Idem. |
| Berger ..... | 1 | Chronic disease of knee-joint. | 1 | Tubercular meningitis. | .. | Had fungous arthritis of stump; synovial sac not dissected out. | Idem., Vol. CLXXI., 1876. |
| Dittel ..... | 8 | ? | .. | ..... | 8 | Extirpated whole synovial sac and suprapatella bursa, and used a special bandage to keep patella in situ; all had good stumps. | Wien. med. Wochens., No. 37, 1877. |
| Romanowsky.. | 1 | Compound fracture of leg, with extensive laceration of soft parts. | .. | ..... | 1 | Good stump; skin over it callous. | Centralbl. f. Chirurg., No. 14, 1874. |
| Albert..... | 1 | Cancer of tibia. | .. | ..... | 1 | Good stumps; bony union between patella and femur. | Wien. med. Presse, No. 33, 1877. |
| | 1 | Sarcoma of leg. | .. | ..... | 1 | | |
| Jacobson ..... | 1 | Compound fracture of leg, with contusion about knee. | .. | ..... | 1 | All good stumps; patella united to femur. | Guy's Hospital Reports, Vol. XXIII., 1878. |
| | 1 | Compound fracture of leg; gangrene. | .. | ..... | 1 | | |
| | 1 | Recurrent erysipelas and necrosis. | .. | ..... | 1 | | |
| Stimson, L. A. | 1 | Sarcoma of calf of leg. | .. | .... ..... | 1 | Femur sawn ½ inch above articular cartilage; patella slipped up; cicatrix well behind face of stump. | Communicated by the operator. |
| Bryant ..... | 1 | Necrosis of tibia, involving knee-joint. | .. | ..... | 1 | Good solid stump; can bear weight of body on it; patella united to femur. | Lancet, January 4, 1873. |
| Weir ..... | 2 | Epithelioma of leg. | .. | ..... | 2 | Good stumps: in one, patella slipped; in other, capable of bearing great pressure. | Now reported. |
| | 76 | | 23 | | 54 | | |

# THE CLIMATE AND DISEASES OF NORTHERN DAKOTA AND MONTANA.

By P. F. HARVEY, M.D.,

ASSISTANT SURGEON U.S.A.

BEGINNING but a few years ago, the development of the northern portion of the territories of Montana and Dakota has now assumed a phase which may be regarded as destined to connect it permanently with the material wealth of the country. The commercial resources of the region are now tolerably well understood, and have been given to the world in the writings of travellers and settlers; but a knowledge of its climatic features in their relation to health and disease has been but meagrely diffused, and in some instances erroneous impressions are known to prevail concerning the effect of the climate upon invalids, and especially upon such as are the victims of pulmonary affections. My personal observations have extended from the Red River of the North to Milk River and Fort Custer in Montana; but my meteorological data are obtained from the registers kept at Fort Buford, D. T., where also were made my studies of the prevalent diseases, and of those benefited or injured by the climate of the region embraced by the boundaries named.

The altitude of this post, obtained by barometric calculation, is 1,900 feet above the sea-level, and the general elevation of the region under consideration ranges approximately between 1,300 and 2,500 feet. The geological formation belongs to the tertiary; but the flood-plain of the Missouri River is largely alluvial, and ordinarily yields, under cultivation, abundant crops of most kinds of cereals and garden vegetables. Chains of eroded hills rise back of the fluvial plateaux with an almost unvarying monotony, in which strata of lignite, limestone, and sandstone may be frequently observed. Boulders and pebbles, granitic and silicious, transported by glacial action, are plentifully distributed over the table-lands and in the valleys. Sand constitutes a liberal ingredient of the soil.

An average of ten years is regarded as a sufficient period for meteorological observations to be conducted in order to eliminate the errors of non-periodic variations, and to yield a close approximation of the qualities of a climate. From records embracing that period of time, I am enabled to compare the meteorological phenomena constituting the climate of this place, and thus give a tolerably correct picture of this feature of my subject.

The isothermal line running through this region is 40° F., according to Humboldt, or 41° F., according to Dove's chart. Starting among the Aleutian Islands, it impinges on the western shore of our continent at the southern extremity of Alaska, and, curving downward, it passes through Lake Superior, Quebec, south of Newfoundland, around which island it winds in a north-easterly direction, past Greenland and Iceland, grazing the Arctic circle, and entering Europe about the centre of Norway; curving thence rather abruptly in a south-easterly direction, it passes north of Stockholm and enters Russia, whence it pursues a gentle slope toward the eastern portion of the Chinese Empire, when it again gradually ascends, escaping among the Kurile Islands, to join its starting-point. A reference to the following table, showing the temperature for the past ten years at Fort Buford, confirms the correctness of the line so far as it relates to this place:

| YEAR. | SEASONS. | | | | Mean Annual. |
|---|---|---|---|---|---|
| | Winter. | Spring. | Summer. | Autumn. | |
| 1868–9.... | 16.54° | 40.66° | 67.07° | 39.84° | 41.03° F. |
| 1869–70... | 13.55 | 41.06 | 68.79 | 44.29 | 41.92 |
| 1870–1.... | 8.87 | 42.58 | 69.58 | 37.93 | 39.74 |
| 1871–2.... | 11.93 | 37.19 | 72.14 | 37.86 | 39.78 |
| 1872–3.... | 3.30 | 36.96 | 65.34 | 36.85 | 35.61 |
| 1873–4.... | 5.16 | 37.96 | 70.17 | 40.56 | 38.46 |
| 1874–5.... | 1.21 | 36.02 | 67.33 | 38.94 | 35.88 |
| 1875–6.... | 19.81 | 37.41 | 66.83 | 38.89 | 40.78 |
| 1876–7.... | 15.46 | 38.40 | 65.58 | 50.30 | 42.44 |
| 1877–8.... | 26.24 | 43.95 | 76.42 | 39.91 | 46.63 |
| Mean temp. for ten successive years..... | | | | | 40.22° F. |

The absolute range of temperature is very great, and alternations are frequent and violent. In August, 1876, while on duty with an expedition against hostile Indians, I saw the thermometer record 116° F. in the shade, at the mouth of the Rosebud River in Montana. Thirty-six hours afterward the temperature had fallen to very nearly the freezing point, and caused no inconsiderable amount of suffering among the troops. On the morning of the second day following I scraped a hoar-frost from a log in front of my tent.

The highest recorded temperature at this post for the past ten years is 104° F., entered under date of July 13, 1872; the lowest, 37° F., on January 31st of the same year. The highest daily mean for one month, from three daily observations, occurred in July, 1874, being 89.12° F. The lowest was in January, 1875, when the monthly mean was 10.16° F. The average maximum temperature for the same month was —3.13° F., and the minimum, —21.97° F.

The change between the day and night temperature is almost always very considerable. In summer blankets are required at night throughout the season. Owing to the rarefaction of the air produced by the action of direct solar heat upon, and its radiation from, these great terrestrial areas, strong winds blow during the daytime, principally from the northwest and west. At night, when refrigeration has proceeded a short time, equilibrium is restored, and aërial movements are much less pronounced. Sudden gusts of cold wind are not infrequent during the summer and winter. The amount of cloudiness is exceedingly variable, the sky ranging through every degree in the course of twelve hours. In short, all the meteorological phenomena which characterize this climate are eminently inconstant, and liable at all times to rapid and profound change.

The rainfall is much greater than supposed, and greater than represented by the records. The latter for the past ten years show a mean annual fall of only 9.65 inches. The greatest quantity fell in 1873 —20.12 inches; and the smallest in 1876—5.40 inches. The amount for different seasons is shown in the subjoined table:

| YEAR. | Amount. Inches. | YEAR. | Amount. Inches. |
|---|---|---|---|
| 1869..... | 10.13 | 1874..... | 6.68 |
| 1870..... | 6.19 | 1875..... | 14.85 |
| 1871..... | 9.42 | 1876..... | 5.40 |
| 1872..... | 19.99 | 1877..... | 12.64 |
| 1873..... | 20.12 | 1878..... | 10.38 |

The mode by which these data were obtained was by measurement, with a graduated standard, of the amount of rain caught by a conical vessel. The violent wind almost invariably accompanying rainfall in this latitude introduces, I think, an element of error in estimating the amount of precipitation in the manner above given, and it would seem that the rainfall must be greater by at least one-half than represented by the table. The average annual number of rainy and snowy days for ten years has been 61.7.

The dates on which the river has frozen over at this point during ten years past, I find to range from Nov. 16th to Dec. 13th, and those on which it has opened in the spring from March 19th to April 17th.

The ground dries quickly after rain, owing to the desiccating action of an atmosphere almost destitute of moisture. Excellent natural facilities exist for drainage, both surface and deep. The bottom lands of the Missouri River vary from a few rods to several miles in width, and are subject to non-periodic overflow. A system of ravines runs from the hills to the river basin. Admirable surface-drainage is thus secured. The deep drainage is apparently effected by percolation through slanting strata of sand and gravel enclosed between layers of clay. The water-supply is furnished solely by the Missouri River, an analysis of which, completed on September 2, 1878, is here given:

| Physical character. | Sediment microscopically. | Amount of sediment. | Organic matter by permanganate of potassa. | Organic matter by incineration. | Potash and soda. | Chlorine. | Sulphates. | Lime. | Iron. | Phosphoric acid. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Very turbid, inodorous, almost or quite tasteless. Perfectly clear and tasteless after subsidence of suspended matters. | Composed almost wholly of minute silicious granules, small fragment of an exogenous leaf, and a few infusoria seen. | 390 grains to the gallon. This quantity is, of course, variable, differing with different stages of water. | 1.37 grains to gallon or less. | Residuum from evaporation of 2 oz. of water underwent no change in weight or color by incineration. | From neutrality before and after boiling, judged to contain no appreciable amount. | Not present in appreciable quantity. | Present in considerable amount. | Between 15 and 20 grs. to the gallon, as a sulphate. | None detected by tannic acid. | Present in very small amount. | Aside from the possible objection caused by the presence of gypsum in solution, a perfectly wholesome drinking-water. |

The flora of the country embraces a very respectable number of plants, many of great botanical interest, and some of considerable economic importance. Upward of seventy species were observed and analyzed by the writer during the summer of 1878, a few of which it was impossible to properly assign after a careful and searching analysis, and it is believed that the creation of new genera will be necessary for them. Omitting the rarer and minor forms of plant-life as unessential to the present inquiry, it is regarded as sufficient to allude briefly to the prevalent and characteristic growth of the country. The forests fringeing the water-courses are constituted mainly of the Populus monilifera (Ait.), cottonwood, sparingly intermixed with which is found the Fraxinus viridis (Michx.), green ash. A variety of salix, with the Cornus stolonifera (Michx.), is found growing rather abundantly along the annually submerged river banks. The bark of the latter is dried and smoked by the Indians as a substitute for tobacco. The Prunus Virginiana (L.) and the P. Americanus (Marshall) are encountered chiefly along the banks of ravines. The Shepherdia argentea (Nutt.), buffalo berry, is quite common, and bears an abundant crop of edible scarlet berries, intensely acid, but rich in pectin, and capable of conversion into an excellent article of jelly. The Vitis cordifolia (Michx.), frost grape, and the Ampelopsis quinquefolia, Virginian creeper, are found chiefly among the forests of cottonwood. The Opuntia Missouriensis (D. C.), prickly pear, is abundant, but dwarfed upon the uplands.

The Rosa blanda (Ait.), early wild rose, forms dense thickets along the banks of many streams, attaining a height of ten or twelve feet in some instances. The plants popularly designated as weeds that are worthly of notice, either on account of their abundance or showy petals, are the Grindelia squarrosa (Dunal), Ambrosia, three varieties, Helianthus annuus, Polygonum aviculare, various species of Anothera, Anemone Virginiana, various asters, and many others. A member of the Compositæ grows very abundantly throughout this entire section, and is erroneously called wild sage. Botanically it is the western mugwort, Artemisia Ludoviciana (Nutt.) var. latifolia (Torr. and Gray). It and A. frigida are much valued,

I am informed, by the Indians in the treatment of fevers, gonorrhœa, etc. They use it in the form of decoctions. The buffalo grass (Buchloë dactyloides) is abundant throughout the region. Valuable as a nutritious fodder, it is of some interest scientifically as one of the rare examples of a diœcious grass, its male and female flowers differing so widely in appearance that botanists for a long time regarded them as representatives of different genera.

The vegetation, although moderately abundant in the bottom-land subject to overflow, is insufficient to exhaust the soil vigor; and during July and August, when the river has fallen and the lately submerged ground has been subjected to the action of the sun, it exhales malaria in sufficient quantity to produce its specific effects upon those who may be exposed to its action, if susceptible. Of the presence of malaria I have no doubt, since I have repeatedly observed the diseases which malaria alone can produce occurring here among persons who could not have contracted them elsewhere. In short, the phenomena of rigors, fever, and sweating appearing intermittently and arrested by antiperiodic doses of quinia, must be viewed, in the present state of our knowledge, as having malaria as their essential etiological factor. Not only such clinical features as the foregoing have been witnessed by the writer in his practice at this post, but the modifying influence of the malarial poison upon other diseases has been a matter of not infrequent observation. Hertz* speaking of the geographical distribution of malarial diseases, states, in alluding to North America, that "in the Middle States they are rare, and in the Northern States are probably unknown." Further on, in the same article, quoting from Hirsh, the author states that the northern limit of malaria, for fevers, lays between the isotheres of 59° and 59.8° F. These representations do not harmonize with my experience. The isothermal line of 60° F. passes through Sacramento, Memphis, and Norfolk. There are certainly few practitioners residing at points several degrees north of that line who do not witness and treat febrile manifestations of malaria every summer and autumn, and in the guise of masked intermittents there are not many localities even in the Northern States where malaria does not display its baleful influence during seasons that favor its evolution. It cannot be said that paludal diseases in this region exhibit in any case that malignancy that characterizes them in southern latitudes; on the contrary, they are universally mild and tractable. Their nature, however, is unmistakable. A familiarity of over five years with their protean features in the Southern States has placed me in a position to judge this matter with a moderate degree of certainty. Masked intermittents, in the guise of supra-orbital neuralgia are of common occurrence, yielding to quinia more readily than to any other therapeutic agent.

In August last, fourteen cases of remittent fever were admitted to the post-hospital. The genetic agency was ascribed to the unusually high and protracted heat, and quinine was used with decided modifying influence. One symptom, namely, hemicrania, was unduly prominent in almost every case, so much so in some as to temporarily mask the real nature of the disease and claim for itself an undivided treatment. Having in view the preparation of more extended remarks upon the subject of malaria, as occurring in this and other localities, the above brief allusion is regarded as sufficient in this connection.

Another peculiarity of this climate is the dryness of the atmosphere noticeable nearly the whole year round. Buffalo and other kinds of meat dry quickly when exposed to the air in summer and keep indefinitely. There is present almost constantly a high electric tension of the atmosphere, especially noticeable during the winter months. I have noticed the discharge of sparks from clothing whilst undressing in a dark room, and the crackling of a rubber comb when drawn through the hair is more decided in this climate than I have observed in any other. Newcomers usually complain of inability to sleep well, and in some cases hypnotics have been demanded to combat excessive wakefulness. This annoying trouble is confined largely to the nervous temperament, but a protracted residence usually results in an accommodation of the mixed nervous diathesis to the climatic conditions in this particular.

Broadly speaking, climates have been divided into two classes, the sedative and the exciting; the former possessing essentially a tranquil atmosphere containing a moderate amount of moisture, and generally evincing an electro-negative condition, while the latter is characterized by conditions diametrically opposite, namely, frequent and violent aërial disturbances, atmospheric dryness, and the presence of positive electricity, attributes which manifestly appertain to the climate under discussion. The *rôle* played by ozone is so illy understood and its action in disease so doubtful withal, that consideration of it is omitted, although it is proper to state that Schoenbein's test has revealed its occasional presence in this atmosphere.

In Northern Montana and Dakota, the prevalent diseases incident to climate are such as are usually found in high latitudes, namely: rheumatic, neuralgic, and catarrhal affections, and in summer, along the water-courses, where indeed are found the only settlements, miasmatic diseases prevail in a mild or mixed form.

Typical neuralgias (trigeminal) and assimilated neuroses, myalgia, sciatica, etc., are more common here than I have elsewhere observed, their occurrence likewise having been familiar incidents in the practice of my predecessors, as shown by the registers of sick and wounded. Cases of cervico-occipital or auriculo-temporal neuralgia have been encountered in several instances so closely simulating the symptoms of tympanic and mastoid inflammation, that specular examination of the drum-head was necessary to establish the diagnosis. To what etiological agencies these cases are to be properly referred is in the present state of our knowledge indeterminable, but it would seem that the stimulating quality of the climate, no doubt assisted by individual idiosyncrasy or functional derangements, may be in a general way held responsible. Quinine and the depresso-motors have exerted the greatest curative action, and but few cases have been rebellious. Rheumatism, inflammatory and chronic, is frequently met with, but I have seldom seen it in a severe form. Aside from hereditary predisposition, its causation, in the vast majority of cases, has been referable to disturbance of functional action and nutritive metamorphoses due to catching cold.

Catarrhal and pulmonary affections during the colder seasons usually contribute a fair quota toward the aggregate number of diseases occurring in this climate. So far as my experience goes, these diseases are rare in summer; and their prevalence in winter is readily explicable on account of the sudden and violent alternations of temperature that are of such frequent occurrence throughout that season. Tonsillitis, laryngitis, otitis media, pleurisy, bronchitis, and rhinitis are the most common forms in which catarrhal

* Ziemssen's Cyclopædia, Vol. [illegible], p. 562.

troubles have expressed themselves. Inflammation of the middle ear and post-nasal passages have been found exceedingly intractable in several instances, nor has it been possible to establish the strumous diathesis in these cases, but the fluctuations of temperature acting upon the *pars minores resistentiæ*, must be viewed as the essential cause of their intractableness.

In regard to phthisical troubles it can be safely affirmed that this climate has no permanent benefit to confer upon the invalid suffering with pulmonary tubercular deposits during any season; and in the winter or colder seasons, nothing but an acceleration of the morbid processes can be looked for by a residence here, even under the most favorable circumstances. This statement is based upon practical observation as well as upon theoretical considerations. However, many valetudinarians thought to be consumptive, who are not at all tuberculous, but who suffer in reality from torpidity of the digestive and assimilative organs, may have recourse to this climate with some assurance of benefit. In fact, I have personal knowledge of such cases.

During the warm months of summer enteric diseases of mild form are not uncommon. Perhaps the alkalinity of the drinking-water may in a measure account for their prevalence, but the high temperature should probably be charged with the bulk of the blame. Remittent (mountain fever), intermittent, and typhoid fevers are met with during the summer season more frequently some years than others, and when they occur their frequence is in the order named. Due to causes analogous to those which engender them elsewhere, their treatment has been likewise similar. The two former, as met with, are of milder grade than at points farther south, but the cases of typhoid that have fallen under my notice have been characterized by all the severity of that disease as encountered elsewhere.

Having thus hastily sketched the diseases most commonly developed by, and encountered in this climate, let us see what classes of cases promise to be benefited or injured by its action. This may be succinctly and perhaps most advantageously studied from a standpoint of temperament. Authors mention five temperaments, viz.:—the sanguine, the nervous, the choleric, the melancholic, and the lymphatic. In the sanguine there is a predominance of the circulatory system, and its diseases are usually violent and inflammatory. The choleric is marked by a strong, hard pulse, easily excited passions, and a supposed predominance of the biliary function. Its diseases are much the same as occur in the sanguine, with a stronger tendency to hepatic and digestive derangements.

The nervous temperament is marked by excitability of the cerebro-spinal centres and by a preponderance of the emotions and impulses over the reason and will. Its diseases belong to the group of neuroses, and are in many cases chronic. In the melancholic there is a gloomy mind and a manner grave and passive; its morbid states are referable to a depressed vital energy, and are liable to be expressed in local congestions and chronic disorders. Finally, the lymphatic, as indicated by its name, is characterized by an excess of the colorless elements; its diseases are due to languid action of the vital functions, consisting chiefly of strumous and dropsical affections.

Having seen that the qualities of this climate are those of a stimulating character, with harshness and variability superadded, it is evident upon rational grounds that we could not expect much benefit to ensue from its action upon the sthenic diseases of the sanguine temperament, although robust persons of that habit may not suffer from a residence in it. Diseases overtaking them while here, however, would be of a more violent character than in a less exciting atmosphere. Inflammatory rheumatism, tonsillitis, and acute inflammations of the respiratory passages, are the maladies I have most frequently met among representatives of this diathesis.

Perhaps the temperament least compatible with the peculiarities of this climate is the nervous. Its dominant traits are usually exalted by a sojourn here, especially noticeable soon after arrival. The modified temperament, as before mentioned, appears to undergo a partial acclimation; but the purely nervous does not adapt itself to the uncongenial surroundings even after the lapse of years. In this habit of body we find developed various functional diseases of the brain, *e. g.*, nervous irritation, cephalalgia, stupor or wakefulness; of the nerves, as the various forms of neuralgia; and of the general nervous system, as hysteria. The latter disease has presented itself to me in such a severe and obstinate form as to require a change of climate in order to make any impression upon it. Manifestly, then, diseases occurring in these two temperaments are not likely to derive any benefit from a recourse to this climate.

I find that diseases occurring in the choleric temperament, such as grow out of biliary and gastro-intestinal derangements, undergo undoubted amelioration under the stimulating influence of this climate, augmenting as it does the respiratory functions and proportionately diminishing the amount of hepatic labor.

So also the morbid conditions commonly associated with the lymphatic habit, due as they are to torpidity of the circulatory and absorbent systems, may derive benefit by an increase of vital activity.

In the melancholic temperament, the depressed functions of the organism, manifested in dyspepsia, languid circulation, and nerve-tire or neurasthenia, would be likely to return to a more healthful and vigorous mode of action, if subjected to the influence of this climate.

There are other morbid states that, without reference to temperament, would be benefited or injured by this climate; but the limits of time and space forbid their enumeration, if indeed their nature is not already sufficiently obvious from the foregoing remarks. It may, however, be properly remarked in conclusion, that surgical injuries heal with gratifying rapidity in this climate, owing no doubt to the increased circulatory activity that it fosters, and consequent increased protoplasmic or nutritive changes.

Fort Buford, D. T., March 18, 1879.

## IMPROVED METHOD OF DRAINAGE IN EMPYEMA.

By W. S. ELY, M.D.,

Rochester, N. Y.

In the treatment of cases of empyema, where the discharge of pus is more or less constant, a comfortable, cleanly, and efficient drainage is an important consideration. Especially is this true, when long-standing disease has determined permanent contraction of the lung, and there is a large pyogenic cavity requiring daily emptying and cleansing.

To meet the indications thus presented, I have used, since September last, a method of drainage, a brief description of which is here given.

It consists of a soft rubber tube, held permanently

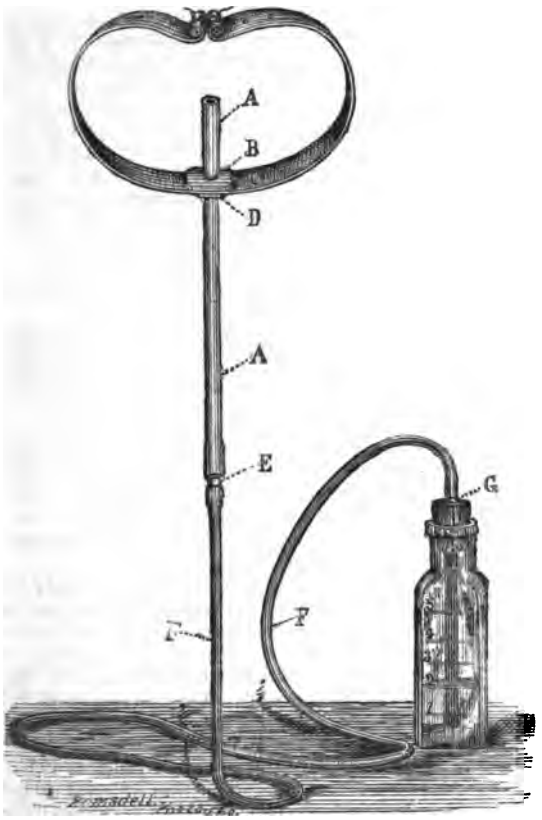
in the cavity, and connected six or eight inches from the chest to four feet, of smaller rubber tubing, which conducts the pus to a bottle, and discharges it under the surface of a carbolic acid solution.

Three ideas are embodied in this apparatus.

*First.*—A method of easy and permanent attachment of the drainage-tube to the depth in the chest desired.

*Second.*—The practical exclusion of air and the reception of all the pus discharged in a bottle, maintained at a position below the cavity to favor a siphon action.

*Third.*—An absence of all valves, and an easy separation for daily washing and cleansing, under an antiseptic spray.




1st. The attachment of the drainage-tube. This is made by passing the rubber tube, A, of the size selected, through a hole in a plate of sheet rubber, B, one and a half inches square, and one-eighth of an inch thick. The hole should be from two-thirds to three-fourths the size of the tubing. The elasticity of this rubber plate will hold the tube at any point desired. Over this is placed a piece of ordinary thin rubber bandage, C, one and a half to two inches wide, perforated for the passage of the drainage-tube. This serves as the band encircling the body. A smaller plate of the sheet rubber, D, one-half or three-fourths of an inch square, perforated as before, acts as a cap to keep the band in place. The ends of the band should meet tightly on the opposite side of the body. To fasten them, roll the ends over pieces of wire, tie them, and connect the rolls with a tape passing through central holes in the band.

2d. The practical exclusion of air, and the reception of the discharge in a bottle.

If the drainage-tube fills the opening in the chest, and the band is firmly applied, little if any air will enter the chest about the tube. Four feet of one-quarter inch, black rubber tubing, F, connect the drainage-tube with the bottle. At both extremities of this connecting tube, E and G, the joint is made by one and a half inches of strong glass tubing, which, at G, passes through the cork and projects below, to allow of a short piece of tubing being slipped on, to reach nearly to the bottom of the bottle. The cork is notched on the side for the egress of air as the bottle fills. Two ounces of a twenty per cent. solution of carbolic acid are put into the bottle to disinfect the pus as it discharges, and prevent the ingress of air to the chest.

3d. An easy separation for daily washing and cleansing.

This separation is made under the antiseptic spray, by slipping off the drainage-tube from the connecting tube, at E.

The cavity is then washed out through the drainage-tube with a fountain syringe, and the attachment is again made to a fresh tube and bottle. Two connecting tubes and bottles are thus necessary, that one may be thoroughly cleansed and disinfected while the other is in use. The antiseptic spray is maintained continuously during the change.

I have used the above apparatus for six months in a case of empyema, with great comfort to the patient. During the day he walks about with the bottle in his pocket. The connecting-tube is brought down under his clothes, with as many turns as may be convenient. At night the bottle is maintained upright on the floor. The drainage-tube has not so enlarged the opening in the chest as to render a change necessary. A little pus may leak out of the chest, but it is exceptional, and is at once taken up by the absorbent cotton which surrounds the tube at its entrance, to prevent its being bent and obstructed. In my case, the siphoning action is a noticeable feature of this treatment. The pus is found each morning in the bottle, and measured by the scale on its side. Seldom more than a few drops escape in the washing process.

## CASE OF TWIN-BIRTHS WITH AN INTERVAL OF THREE DAYS.

By PROF. GEORGE E. POST, M.D.,

BEIRUT, SYRIA.

A Jewess, mother of several children, was delivered on Wednesday, February 6, 1879, of a living boy. The labor-pains ceased almost immediately, but the uterus remained of the full size of a gravid womb at term, and an amniotic discharge continued for thirty hours, at the end of which, Thursday, February 7, at 7 P.M., I was called to see her. At first she refused to allow any examination, simply desiring medicine to promote expulsion of the child. The midwife said that the cord and placenta were still in utero, and that there had been no hemorrhage after the birth of the child, and that she could not feel the head of the other child, whom the mother constantly averred was still in her womb. She refused to allow any examination other than palpation of the upper part of the abdomen. The feeling was that of a child at term, but there was no motion. Under such circumstances I left her, declining to give ergot unless allowed a satisfactory examination. The friends informed me that she was delivered on Saturday, at 9 or 10 A.M., of a second child, still-born, but of full size and development. She suffered little in the interval between the two births, and, as far as I could ascertain, took nothing to expedite the expulsion of the second fœtus.

# Reports of Hospitals.

## BELLEVUE HOSPITAL.

### Notes of Practice and Peculiarities of Treatment.

#### TYPHOID FEVER—CEREBRAL AND CARDIAC SYMPTOMS—TREATMENT BY THE USE OF LARGE DOSES OF WHISKEY—RECOVERY.

The following case presented points of interest worthy of special mention:

A young man, æt. 20 years, was admitted to the hospital on the 21st of December, 1878. When admitted, he had been sick ten days. He was taken with chills, which were followed by fever. At the time of admission, in the tenth day of the disease, his face was flushed, he was somewhat deaf, there were sonorous and coarse râles over the chest, and his temperature was 104° F. On the following day an eruption was seen upon the abdomen, resembling the eruption of typhoid fever. Physical signs in the chest remained the same. He was stupid and had a muttering delirium. His bowels were confined. After admission, his temperature did not present any regular rise and fall; it was uniformly quite high. On the evening of the day on which he was admitted the temperature was 105° F. On the next morning the temperature was 103° F., and in the evening of that day it was 104° F. On the following day the temperature was 103° F.

Dec. 27.—His temperature was 104° F.

Dec. 28.—Morning temperature, 101° F.; evening temperature, 101¼° F.

Dec. 29.—His temperature was 102° F. Dec. 30.—102¼° F.; Dec. 31.—101° F. in the morning, and 102° in the afternoon.

Jan. 1, 1879.—His temperature was 102° F. in the afternoon.

Jan. 2.—101° F. in the morning, and on the morning of Jan. 3, it was also 101° F. On the 7th of January the temperature fell abruptly to 98° F., and up to January 14, remained between 98° and 95° F.

The temperature record was not of much value in assisting in the diagnosis of typhoid fever.

The chief points of interest in the case were the cerebral symptoms and the cardiac symptoms.

At the time of admission his pulse was very feeble and moderately rapid. The cerebral symptoms and the condition of the pulse continued to get worse for several days; he was constantly delirious, and his pulse became exceedingly feeble and irregular. His tongue was brown and dry, and his general appearance indicated a fatal termination.

The following treatment was adopted:

In the first place, ten grains of the sulphate of quinine in solution, with sulphuric acid, were administered, beginning in the morning at 10 or 11 o'clock, and repeating the dose every hour until afternoon, while the temperature was high. After the temperature fell somewhat, the quinine was stopped and the whiskey, which he was receiving, was given in very full doses. The whiskey was given according to the condition of the pulse. On the 24th of December, the whiskey was commenced in half-ounce doses every four hours. But the cerebral symptoms and the condition of his pulse growing rapidly worse, the quantity of whiskey was rapidly increased, and he received half an ounce every two hours; then every hour; and then an ounce every hour. The administration of whiskey in such large and frequently repeated doses was followed by decided benefit. The doses were increased in size and frequency until the condition of the pulse was improved; that is, until it was fuller and more regular. When that condition was produced, the quantity of whiskey was gradually diminished; but if the symptoms of flagging were again developed, the quantity was again increased, so that the stimulant was kept at that maximum point every hour, for several days. In that manner the condition of the pulse was not only improved, but kept permanently improved, and with the permanent improvement of the pulse there was a daily improvement in the patient's general condition.

He became less and less delirious, and on the 7th of January, his temperature fell to the normal, and he was fairly convalescent. One point of interest in the treatment of the case was found in the administration of the alcoholic stimulant. The visiting physician regarded alcohol as one of the most valuable remedies at our command in the treatment of typhoid and typhus fevers. But to be serviceable, it must not be given as a matter of routine, for there were many cases of these forms of fever which were not only not made better by the use of stimulants, but were made positively worse; there were cases, also, which although perhaps not made worse, certainly were not made any better; that is, they would do exactly as well without as with stimulants.

There were cases, however, in which the heart action was feeble and the cerebral symptoms marked, and under such circumstances stimulants could be administered freely with great benefit. Such cases were not, necessarily, attended by high temperature. It was said that there was no absolute relation between the temperature and the feebleness of the heart's action. For a patient might have a high temperature with a good heart action; or a poor heart action with a moderate elevation of temperature; or both high temperature and feeble heart action.

The quantity given should be regulated entirely by the condition of the heart's action, and there was no limit to the quantity, providing the effect to be obtained was well understood. The use of digitalis in addition, was not regarded with favor. It was thought to be substituting a weaker and less efficient stimulant for a more powerful and a more certain regulator of heart action.

In this case no special attention was paid to reduction of the temperature by application of cold to the surface of the body. He was neither bathed nor sponged. It was regarded as unimportant if the temperature reached 104° or 105° F., for only a few days, and therefore unnecessary to resort to any special plan of treatment for its reduction.

#### ABDOMINAL TUMOR INVOLVING THE MESENTERIC GLANDS, THE RETROPERITONEAL GLANDS, AND THE WALLS OF THE COLON—RARE FORM OF DISEASE.

A male patient, about 70 years old, had a tumor in the right iliac region. The opinion expressed was that he was suffering from one of three things; that he either had a tumor which commenced in the mesenteric glands, or a tumor growing behind the perineum, or a tumor growing in the walls of the colon. At the autopsy it was found that all three conditions were present. The bulk of the tumor was seated in the mesenteric glands; but, in addition, the glands behind the peritoneum were so involved as to form a tumor of considerable size, and the walls of the colon were infiltrated with the same disease. A tumor originating in the lymphatic glands and subsequently infiltrating the walls of the intestine was said to be quite rare.

PLEURISY WITH EFFUSION NEARLY ONE YEAR OLD—SUCCUSSION SOUND REMOVED BY ASPIRATION.

A male patient, æt. 28, had been sick about one year. After the subsidence of the acute attack which involved moderate pain in the left side, and slight febrile movement, he was able to be about and to work some. He noticed that when he walked he could hear a "splashing" inside, like shaking water in a bottle. He had had slight cough with expectoration, but both had subsided, and he had not had night sweats. His appetite was fair, and he felt no special inconvenience except that which arose from the "noise inside," and slight shortness of breath. On examination the apex of the heart was found beating beneath the right instead of the left nipple. The left side of the chest was increased in size about half an inch. Succussion sound could be distinctly heard by both patient and physician. Just above the angle of the scapula, a hollow bronchial respiration could be heard, almost amphoric in character. There was a doubt with reference to the existence of pneumo-hydrothorax. The chest was aspirated, and fluid serous in character withdrawn until the patient began to cough and feel a slight sense of discomfort. About sixty ounces were removed.

On examination it was found that the hollow respiration had been very much diminished, and that the succussion sound could no longer be heard.

One week later the patient's general condition had improved. He had not suffered any "inconvenience" "on account of the noise inside," since the aspiration. The apex beat was just at the right border of the sternum. A second aspiration was made and forty ounces of serous fluid removed. The succussion sound subsequently returned.

CANCER OF THE STOMACH—CANCER OF THE LIVER—ABNORMAL CONDITION OF THE LEFT LOBE OF THE LIVER.

A female patient had an abdominal tumor which was diagnosticated as cancer of the liver. There was no history of gastric disturbance, and it therefore seemed probable that the hepatic tumor was primary. Distinct nodules could also be felt between the liver and the abdominal wall, one of which was movable, and it was supposed that the woman was also suffering from cancer of the omentum, secondary to the cancer in the liver.

At the autopsy, cancer of the stomach was found; the cancer in the liver therefore was secondary. The nodules which were thought to be in the omentum were situated in the left lobe of the liver, which had become so thinned and separated from the main portion of the organ, that it laid in the abdominal cavity as an appendage; that tongue-like portion was the seat of a cancerous nodule.

EMPYEMA IN A CHILD TWO YEARS OLD—ASPIRATION—FŒTID PUS—EXPANSION OF THE LUNG—CASE PROGRESSING FAVORABLY.

A child two years old, with a history which contained a few interesting points, was seen. It was admitted to the hospital in October, 1878, when all the physical signs of pleurisy with effusion were found upon the left side of the chest. It had been sick for some time previous to admission. The chest was aspirated, and *fœtid* pus withdrawn. A little time after, a second aspiration was made, and pus with a fœtid smell was removed.

To-day, three months after admission, respiratory murmur could be heard all over the left side of the chest, though diminished in intensity. The lung evidently had expanded, and it was believed that the diminution in the intensity of the respiratory murmur was due largely to thickening of the pleura.

The case was interesting as showing that two aspirations had given the lung an opportunity to expand to nearly its full extent, and restored the child to tolerable health, even though the fluid in the pleural cavity was purulent and fœtid.

It was interesting as an additional case for those who insist that aspiration alone is sufficient to effect a cure under such circumstances without injecting the cavity with carbolic acid.

The chest measured 21 in. upon the left side, and 23 in. upon the right side. The normal measurement was said to be 22 in. for the right, and 21 in. for the left side.

Whether injection of a pleural cavity containing such fluid should be made, depended, the visiting physician remarked, upon the result of the first examination. If the lung did not expand immediately after the aspiration the cavity should be injected, first with a five per cent. solution of carbolic acid, and subsequently with weaker solutions; if expansion occurred the injections could be dispensed with.

OBSTRUCTIVE JAUNDICE—CATARRH OF THE BILE-DUCTS DUE TO TAKING COLD.

Especial attention was directed to the following points in a case of jaundice. The history was that the man had not been aware that he was sick. He simply noticed that he had taken a slight cold. He had not suffered from pain, had no loss of appetite, nor nausea or vomiting, but simply noticed that his "eyes were becoming yellow," and following that the skin over the entire body became changed in color. He noticed a change in the color of his urine *before* the change in the color of the conjunctiva made its appearance. That was said to be the fact in most cases. There was slight increase in the area of hepatic dulness; probably indicating nothing more, however, than simply hyperæmia produced by distention, and obstruction of the bile-ducts. Catarrh of the bile-ducts depending upon gastritis, and duodenitis as a cause of the jaundice was excluded because there was no history of pain, nausea, or vomiting.

It was regarded as a case of jaundice dependent upon a catarrh of the bile-ducts which had been produced by taking cold the same as nasal catarrh, or intestinal catarrh, or vesical catarrh could be produced by the same cause. It was an exceptional case in this respect. It was believed that catarrh of the bile-ducts occasionally occurred in connection with the general symptoms of nasal catarrh, and gave rise to jaundice.

In way of treatment, mild counter-irritation over the hepatic region, and the internal use of rhubarb and soda were suggested.

CARDIAC HYPERTROPHY PRODUCED BY ACTIVE MUSCULAR EXERCISE.

While examining the case it was discovered that there was slight cardiac hypertrophy without valvular lesion. The man was a laborer, and had been for several years a brakeman on a railroad. The remark was made by the visiting physician that he saw more cases of cardiac hypertrophy, without valvular lesion or arterial changes, and in young persons, among brakemen than among any other class of men.

WHOOPING-COUGH—BRONCHITIS—PNEUMONIA—PARTIAL HEMIPLEGIA—MITRAL INSUFFICIENCY.

An interesting case was seen in the children's ward.

A girl æt. two and a half years had whooping-cough four months ago. She had an attack of bronchitis fourteen days ago, with high fever and convulsions. Two days ago it was noticed that her right arm was paralyzed, her right leg was paretic, and also the left side of the face was paretic. At about the same time symptoms of pneumonia were developed, and the evidence of consolidation of the lower portion of the right lung soon became well marked. There was mitral insufficiency. The paralysis was believed to be embolic. It was incidentally remarked that Fleischmann (lately deceased) had called attention, in his last writing, to enlargement of the glands at the angle of the jaw, as evidence of the presence of pneumonia in children. But it was believed by the visiting physician that such glandular enlargement meant only naso-pharyngeal catarrh, and had relation only to the catarrh, and no relation whatever to the pneumonia. The temperature was 102½° F. It was thought advisable to give about six or eight grains of muriate of quinine in solution for the purpose of reducing the temperature.

Croton chloral in five-grain doses was recommended to secure rest. Milk diet.

## Progress of Medical Science.

NITRO-GLYCERINE AS A REMEDY FOR ANGINA PECTORIS.—Dr. Wm. Murrell reports a case of angina pectoris, in which very gratifying results followed the administration of nitro-glycerine. The treatment was begun by drop doses of a one per cent. nitro-glycerine solution, in half an ounce of water. In a week there was marked improvement, both in the frequency and in the severity of the attacks, and it was found that the administration of a dose during an attack would cut it short. Even in this small dose the physiological effect of the drug was produced, the patient complaining of a strange sense of fulness and pulsation in the head, felt principally in the temples and across the forehead. The dose was now increased to ℥iij. with more marked relief to the angina, and an increase of the head symptoms. The remedy was now carefully pushed until the patient took fifteen-minim doses every three hours, which amount he continued to take for fourteen days, when he had two "bad shocks," and was induced to lessen the dose one-third. The anginal attacks were now completely controlled, but he continued the ten-minim dose for two months. For the last eight months he has taken nothing but cod-liver oil, and sometimes tonics, and has not had a single attack.—*The Lancet*, Feb. 1, 1879.

LITHOTRITY AT A SINGLE SITTING.—The proposal to remove a large hard stone at one sitting is an attractive one to Sir Henry Thompson, and he has of late lengthened the time occupied by his manipulations beyond what he formerly considered advisable. The great time consumed by Bigelow, however, he condemns as unnecessary, claiming that he can entirely remove a uric acid calculus, weighing from four to five drachms, in a series of three sittings of not more than four to six minutes each, making a total of less than twenty minutes. He criticises Professor Bigelow's instruments as being unnecessarily large, but acknowledges a hint from the American aspirator by which he has modified Mr. Clover's instrument with advantage. He uses two lithotrites alternately (his comparatively small, but strong flat-bladed instruments), handing them, as withdrawn, to an assistant to be cleared of detritus. Each instrument is introduced several times. In this manner, during the month of January, he removed from the bladder of a gentleman, aged sixty-nine, at a single sitting of eight minutes, a hard uric acid calculus, the débris of which weighed, when dried, two drachms—a weight exceeding that of the calculus, in removing which Dr. Bigelow consumed one hour. The bladder was entirely cleared; scarcely any blood was seen; no fever followed, and the patient was doing remarkably well.—*The Lancet*, Feb. 1, 1879.

INDICAN IN THE URINE.—W. Weber (*Archiv der Pharmacie*) employs a method of determining indican in urine, which is especially valuable when the quantity of indican present is very small. The test is performed in the following manner: to thirty cubic centimetres of urine in a large test tube, is added an equal volume of concentrated hydrochloric acid, and the mixture is warmed (not boiled). A drop or two of dilute nitric acid increases the sensitiveness of the reaction. The mixture is then cooled by holding the tube in running water; a layer of ether two or three centimetres thick is poured upon it, and the whole is shaken well. After the ether has separated from the aqueous fluid, there will be seen upon it a distinct blue froth, the color of which can be perceived, in those cases in which the quantity of indigo-blue is very small, by holding the tube between the eye and a white ground. If the blue color should not become evident after several minutes, a few drops of alcohol should be added. This will cause the froth to disappear and the smallest quantity of indigo may then be recognized by the blue color of the ether solution. After a while the indigo-blue separates from the ether and forms a deposit between the two fluids, while the indigo-red remains dissolved in the ether. The author has only rarely failed to detect indican by this method.—*The Boston Medical and Surgical Journal*, Feb. 27.

IRRITABILITY OF THE BRAIN.—1. If the irritation of the motor cortical region of the brain be prolonged, the corresponding muscles will return to their previous condition of repose despite the persistence of the stimulation. This muscular relaxation is due to momentary loss of the cortical excitability. It is characteristic of this phenomenon, that the exhaustion is limited to the centre which is stimulated; when the stimulation is suspended for a few minutes, the centre spontaneously recovers its irritability.

2. Irritation of the gray substance of the motor zone gives rise to epileptiform convulsions on the other side of the body. Irritation of even much greater intensity, when applied to the white matter underneath the cortex, after removal of the gray substance, is not followed by similar phenomena; so long as the irritation is applied, the muscles of the corresponding link remain in a tetanic condition, but their contraction ceases as soon as the stimulus is removed.—*Gaz. Méd. de Paris*, Feb. 15, 1879.

NEW DEMONSTRATOR OF ANATOMY IN JEFFERSON MEDICAL COLLEGE.—At a meeting of the Trustees of the Jefferson Medical College, held on Thursday evening, April 3d, at their rooms in the Hospital building, Dr. William S. Forbes, surgeon to the Episcopal Hospital, was elected demonstrator of anatomy. The other candidates were Drs. Henry C. Chapman, W. W. Keen, John B. Roberts, and J. H. Andrews.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, April 12, 1879.


## TENDON-REFLEX.

In the *Archiv f. Psychiatrie*, Bd. V., 1875, Erb and Westphal described, independently of one another, a peculiar symptom which had hitherto passed unnoticed, and which has since, under the term tendon-reflex, become the subject of considerable discussion. If the ligamentum patellæ be rendered tense by flexing the knee at a right angle (the thigh being supported by crossing it over the other limb), and the tendon be then smartly tapped with the finger or with a percussion-hammer, an involuntary muscular spasm will be produced in the quadriceps extensor femoris. This contraction may be so powerful as to cause a vigorous propulsive movement of the leg, and even of the entire limb. This phenomenon has been observed in various cerebral and spinal diseases, such as epilepsy, hemorrhage, embolism, tumor of the brain, cerebro-spinal sclerosis, myelitis, hematomyelie, lateral spinal sclerosis, etc. With exceedingly few exceptions, it has been found absent in locomotor ataxia, even in the initial stage, before the symptoms proper of ataxia have become developed. It is also usually, though not invariably, present, to a certain extent, in healthy individuals. Analogous symptoms may be produced upon almost all of the other tendons of the body, but, with the exception of the ankle or foot clonus (due to stimulation of the tendo Achillis), they are not so well marked as when the ligamentum patellæ is experimented upon.

The question at once arises with regard to the causation of this symptom, "Is it merely local and due to mechanical irritation of the parts, or is it a reflex act?" In the first article which he devoted to this subject, Westphal came to the conclusion that it was due to direct irritation of and increase of tension in the ligamentum patellæ and to the secondary increase of tension in the muscular fibres of the quadriceps, which are all inserted into the upper part of the tendon. There is no doubt that the symptom is due to irritation of the tendon itself, and not of the overlying skin. If the integument covering the ligamentum patellæ be pinched or otherwise irritated, or if the skin be drawn away from the tendon and then percussed, similar phenomena will not be produced. Percussion of the patella is also attended with negative results. These facts do not, however, prove that the phenomenon is not reflex, but merely that it is not an ordinary cutaneous reflex.

Schulze and Fuerbringer, in the course of their investigations on this question, observed that, in the rabbit, section of the crural nerve (which innervates the quadriceps extensor) will cause a disappearance of the phenomenon, and they therefore concluded that the symptom was a reflex. But Westphal demonstrated that the section of the nerve produced relaxation of the muscular fibres, and that the condition necessary for the production of the phenomenon (increased tension of the muscle) was thus abolished.

In the latter part of the year 1878, Tschirjew made an exhaustive review of the entire subject, and thereby arrived at certain definite and indisputable conclusions.

In order to determine whether the abolition of the symptom, after section of the crural nerve, was really due to the relaxation of the muscle, he adopted the ingenious expedient of gently stimulating the peripheral portion of the cut nerve with the electrical current in order to restore the previous tension, and then attempted to produce the phenomenon in the usual manner. This attempt was always followed by negative results.

Furthermore, if the "knee-phenomenon" is due to mechanical irritation of the muscular fibres which are inserted into the ligamentum patellæ, the wave of muscular contraction should pass from below upwards. Tschirjew's experiments with a registering apparatus have shown conclusively that the muscular wave, which occurs during the production of the "knee-phenomenon," assumes no particular direction, a fact which we would naturally expect if the muscular stimulus has passed through the nerves.

Finally, experiments with the myograph proved that the time which elapses between striking the tendon and the resulting muscular contraction is too great for the mere propagation of the irritation from the tendon to the insertion of the muscle. The latter experiments were also confirmed by the recent investigations of Gower (reported in January of this year, before the Royal Medical and Chirurgical Society), who found that the interval between the tap upon the tendon and the contraction of the quadriceps, varied from .09–.15 of a second, a period which coresponds to the time necessary for the performance of a reflex action (conduction .045 second, latent stimulation .01 second, reflex process in the cord .05 second).

We can therefore no longer doubt that the phenomenon in question is really a tendon-reflex, and that

its production is due to increased reflex excitability of the spinal nervous centres.

According to Tschirjew, the tendon-reflex has important bearings upon the vexed question of muscular tonus. As is well known, the existence of such a condition has been recently questioned by various physiologists, and even those who admit its existence have offered no satisfactory explanation thereof. Tschirjew thinks that muscular tonus is very probably a tendon-reflex, induced by the tension to which the various tendons throughout the body are subjected, partly on account of the anatomical relations of the insertions of the muscles, and partly on account of the varying position of the levers which are connected with the ends of the muscles (the bones).

The clinical relations of the tendon-reflex in question are not, by any means, so well understood as its physiological bearings. It is, however, pretty well established that the "knee-phenomenon" is abolished at an extremely early stage of locomotor ataxia, when the only symptoms in the case consists, perhaps, of an affection of certain of the cranial nerves, and the characteristic lightning-like pains in the legs. In rare cases this symptom has been found present in ataxia, but in these instances sensation was little or not at all affected, and the shooting pains in the limbs were likewise absent.

We must, therefore, regard the knee-reflex as a very valuable sign in differentiating the early, incipient stage of locomotor ataxia from the beginning of other obscure cerebral or spinal diseases. In this way, the symptom has an important bearing on the prognosis of ataxia, since our only chance of causing a favorable termination of this terrible disease lies in our ability to make a positive diagnosis before the ataxic symptoms proper have developed.

It is probable that continued observation upon the occurrence of knee-reflex will furnish us with additional important guides with regard to the diagnosis and prognosis of other nervous affections.

## THE TENEMENT-HOUSE QUESTION.

THE present agitation about the condition of the tenement-houses in this city has brought out many facts that seem to surprise as well as arouse the public. As a result, there is now a great cry for model tenement-houses; and, in addition, a bill has been introduced into the State Legislature compelling future structures of this kind to be built upon sanitary principles.

Most of the facts upon this question have been known for a long time, especially to the medical profession, and a few philanthropists had already erected better houses or improved old ones, thus unostentatiously commencing an attack upon the evil. These beginnings, however, were small enough, and it was a wise step to mass the facts at once before the people, with all the force of pulpit and platform oratory. Those which relate especially to the medical side of the question we may here summarize.

We are told that twenty-seven thousand deaths occur annually in New York. Of these, nearly one-half are of children under five years of age, and nearly one-third were caused by zymotic—that is to say, preventable diseases. About one-half our population lives in tenement-houses, and two-thirds of the entire number of deaths occur among this class. Of the vast number of children that die, a large proportion live in these houses, and it is even claimed that a child born there has but one chance in ten of reaching adult life. This great mortality is due to over-crowding, lack of air, of light, of drainage, and of cleanliness; and what we need, therefore, is dwellings in which the last item shall be enforced, and the rest be made possible.

These facts are sufficiently old and familiar, but we could hardly avoid repeating them in this connection. The question they present resolves itself into two phases—that of improving what buildings we have now, and of seeing that future ones are properly constructed and cared for. The present tenement-house law provides especially for safety in case of fire. The proposed substitute, to which we have referred, is intended to secure, in addition, sufficient air and light. It is superfluous to praise its object or urge the importance of its passage. Meanwhile there are efforts making to erect new model tenement-houses on a paying basis. Such already exist in Brooklyn, and are a financial as well as sanitary success. They secure to the tenants an independent suite of three, four, or more rooms, which are well lighted, well ventilated, and have every provision to secure proper cleanliness. Whether such buildings can be extensively introduced into New York is still a disputed question. The obstacles here are the higher cost of land, which will oblige rentals to be about twenty per cent. greater than in Brooklyn, or from $8 to $9 instead of from $6 to $8 per month. In addition to this is the fact that a model tenement cannot be erected on the ordinary city lot measuring 25 by 100 feet. It will therefore always require a considerable amount of capital to erect better buildings, for, to secure the greatest economy and efficiency, lots 100 by 100 will generally have to be purchased.

We have, therefore, these difficulties; but, although they can never be entirely surmounted, with the help of a proper law, greatly improved, if not perfect tenements can be built.

The erection of proper dwellings, however, is but one step. These will be of no use without a population that can appreciate and take care of them. We are convinced that sanitary missionaries, to instruct people in this direction, are at present by far the most desirable as well as most practicable agents of reform. A single case is sufficient to illustrate this. At a new model tenement-house on Mulberry street are two

large, clean, and sunny rooms, unrented. Nearly opposite is a miserable den, and in two of its dark and filthy rooms a family is living and paying a rent which is a dollar and a quarter more per month than that of the rooms in the new building. This building itself is not yet entirely full, although its rents are not above the average.

There are many other similar cases, in the light of which one cannot avoid the conclusion that many of those who are filthy are rather fond of it, and will continue so until they are shown that dirt is not a necessary ingredient of a regular meal or of domestic happiness. That it is not at all impossible to educate people out of this too terrestrial condition has already been sufficiently proved. There are missions which are showing young girls how to cook clean and wholesome dinners, and there are philanthropic landlords who by personal teaching and enforced regulations have marvellously improved the condition of their tenants. We have already 21,000 tenement-houses; these are built, and, good or bad, cannot be torn down. But they can be greatly improved, and their inhabitants instructed; so that here, we repeat, is the present greatest field for sanitarians and the benevolent. In corroboration of this we find that the rather pretentious "special commission" of one, appointed by the *Lancet* to investigate the causes of the distress among the London poor, came to the single practical conclusion that London, too, needed sanitary missionaries.

The investigations made in connection with the question here discussed have been largely aided and encouraged by the medical profession, whose experiences with tenement-house life have naturally been very considerable. The fact has a certain significance which, although not entirely pertinent, we may here refer to.

Through sanitary efforts already made the per cent. of deaths in this city has been very considerably decreased, and if we may reckon, as is usually done, for one death twenty-five cases of sickness, there are one hundred thousand fewer cases of sickness in a year now than there were when the Board of Health began its work. The persons thus kept alive belong, for the most part, to a class who would be treated gratuitously. But they would swell the clinics at hospitals, and would increase the experience and to some extent pecuniarily benefit the physician.

Thus it would appear that the doctor, in urging sanitary reform, is humanely prejudicing his own scientific and financial interests. To a certain slight extent this is the case, and the profession may feel pleased to know that it is displaying some indication of that moral grandeur with reference to which we are so uniformly treated in Commencement orations. But it will be a long time before sanitary measures make any notable difference in hospital and private practice. And this particular reform among tenement-houses is one which will tend chiefly to relieve him from a disagreeable and an unprofitable benevolence.

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ABOLISHING HEALTH BOARDS.

In 1875 the Legislature of Georgia established a Board of Health. Although this board was supplied with very little money, it did a very good work in the next two years, and published valuable annual reports. In 1877 no money was voted for it at all, and its work stopped. At the recent session of the Legislature a bill was introduced to abolish the board entirely, on the score of its uselessness and expense. The State Medical Societies combined to petition against such a movement, and, as a result, the board was continued, but the Legislature adjourned without giving it any money, thus making it practically useless. All this took place in what boasts to be the Empire State of the South.

It is hardly necessary to do more than repeat the story, for it carries the comment with it. If there is one thing in modern medical science that has become well established, it is the utility and necessity of public hygiene and State medicine. If the Legislature of Georgia is not aware of this, it is a very ignorant body; if it is aware of it, its indifference shows it to be a very stupid one.

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# Reports of Societies.

## NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, March* 12, 1879.

Dr. E. L. Keyes, President, in the Chair.

OVARIOTOMY.

Dr. Bozeman presented two ovarian tumors removed by him from the same patient. The interesting point in the specimens was the looping of the pedicle of one of the diseased ovaries around the round ligament of the uterus.

The patient, single, aged 23, having a healthy family and personal history, first felt symptoms about a year before the operation. There was pain in the left iliac and in the lumbar regions; this increased and gradually was felt in the left groin, hip and labium. At the same time a small tumor appeared in the left iliac region, which was rather sensitive and somewhat movable. This increased in size till the time of examination. It was then the size of a man's head. The uterus was normal in size, anteflexed, and inclined to the *left side* very much.

Upon operating, January 24th, in the usual way, under Lister, a non-adherent, multilocular cyst was discovered. The fluid was drawn off with a trocar and canula. It was then found that the pedicle was twisted seven times upon itself, and was also looped around the round ligament. This looping took place, evidently, when the tumor was small, and as it grew up out of the pelvic cavity it drew upon the round ligament, making it very tense. The pedicle was tied, severed, and left in the abdominal cavity. The other

ovary, being considerably enlarged, was removed also, and the operation concluded without any complications.

The explanation suggested for this peculiar looping was, that there had been a prolapse of the ovary, as happens in ovarian hernia, but the ovary instead of entering the abdominal ring, dropped down into the triangular space between the round ligament and the uterus; it then gradually worked its way towards the recto-uterine space, and, as it increased in size, was lifted out of the pelvis, its pedicle in this way being carried under the round ligament. The twisting of the pedicle is not rare, but this is the first reported case where it was thus looped.

The patient made a good recovery and now menstruates regularly, although completely unsexed.

### INTERESTING CASE OF UTERINE DISPLACEMENT.

DR. PEABODY exhibited the uterus, left ovary, and bladder removed post-mortem from a woman aged fifty years, and upon whom the operation of ovariotomy had been performed some time before at St. Thomas's Hospital, London. He gave the following points in the history:

Dr. Partridge was called to see a woman, and found her dying from exhaustion. She died four hours after. He found vagina occluded by a dense, firm, hard mass, so as to admit only one finger. There was a fetid discharge from vagina. Diagnosis of cancer of uterus had been made by previous attendant. There was nothing to be done. Post-mortem examination showed broad ligament fixed at lower angle of a cicatrix in abdomen; uterus elongated about five inches, and distorted by constant traction. There was no tumor connected with uterus; no ulceration. Pelvis was filled with dense, firm mass, which proved to be only connective tissue. No enlarged glands; urethra surrounded by mass. Bladder distended to umbilicus, and very thin. No abscess found. Case is of interest in relation to the operation of ovariotomy for uterine displacement in cases where ovaries are not affected. Dr. Koeberlé, of Strassburg, relates a case in which irreducible retroversion of uterus gave rise to intestinal obstruction which could not be overcome, and in which permanent cure was effected by gastrotomy. Patient was twenty-seven years old; had suffered from obstinate constipation, having passed nothing from bowels for four months. At intervals had fecal vomiting. For several months confined to bed. For two months nourished by milk alone. Abdomen was hard, and left flank filled by fecal masses of stony hardness. Rectum empty, and uterus completely retroverted. Condition attributed to a fall from a carriage six months previously. All efforts to replace uterus had failed, notwithstanding various and energetic treatment.

After trying enemata and drastic purgatives, Dr. P. resolved on operative interference—not on account of retroversion, but on account of obstruction. Resolved, however, also, to cure displacement by excising one ovary and fixing its pedicle to abdominal wall, as in ovariotomy; uterus was removed from its place, not without some force, being impacted by intestines full of scybala, which lay above it. Intestines were kneaded by fingers to make scybala pass downward. Left ovary was drawn out of lower angle of wound in abdomen, cut off, and pedicle fixed in wound. Convalescence was rapid, as after easy case of ovariotomy. A large quantity of hard scybala was passed spontaneously on first day, and enormous quantity after enema of senna on third day. Colic and vomiting disappeared at once, menstruation was normal, and patient enjoyed good health for four years. At end of that time she again came under observation with vaginismus, constipation, and vesical tenesmus. Profound hysteria had been established in consequence of reverse of fortune. Examination showed that uterus remained in a somewhat anteverted position, and use of sound showed that it was still firmly attached to anterior abdominal wall.

### LIPOMA WITH CALCAREOUS DEPOSIT.

DR. W. T. BULL presented a lipoma with calcareous deposit. The tumor formed a mass the size of a man's fist, hanging by a narrow pedicle from the anterior axillary fold of a woman fifty-one years of age. The growth, always painless, of twenty years' existence, presented all the features of a subcutaneous fatty tumor, except that at the lower part there was a lump of stony hardness as large as a horse-chestnut. It was removed by cutting pedicle with scalpel. No vessels bled. A longitudinal section (with knife and saw) disclosed a fibrous capsule enclosing fat-tissue. The hard lump had an outer layer one or two lines thick of bony consistence, the rest of the mass like thick paste. Both parts found to consist of carbonate of lime by treating with sulphuric acid (under the microscope).

DR. POST remarked that in lipomata of long standing, calcareous degeneration was not uncommon.

### CHYLOUS URINE AND FILARIA IN BLOOD.

DR. SATTERTHWAITE presented a specimen of chylous urine in behalf of a candidate for admission to the Society, stating that an interesting point in the history of the case, viz., the presence of filaria in the blood, had not been mentioned.

DR. ABBE remarked that the case was one of much interest, as the subject was now receiving considerable attention from English observers.

It is eight or nine years since Dr. T. R. Lewis had reported his first observations on some fifteen cases of chyluria studied in tropical climates, where it was prevalent, and announced his discovery that the blood of patients with chyluria swarmed with a minute filaria.

So numerous were they, that a drop of blood obtained from pricking the lobe of the ear, or other part of the body, would commonly contain from one to six filaria.

These were of minute size—in length from $\frac{1}{175}$ to $\frac{1}{120}$ of an inch, and in diameter $\frac{1}{3500}$, and were regarded as an embryonic stage of some larger parasite, which, however, eluded discovery until within the past three years, when Cobbold, Lewis, and Carter each claim to have found mature filaria in blood-clots and lymphatic abscesses of the axillæ of patients in tropical climates. The mature worm measures in length three and a half inches.

DR. ABBE had himself observed two interesting cases of this rare disease. The first was in 1875.

The patient, who was twenty-eight years old, and a native of the West Indies, had had recurrent attacks of chylous urine during the previous eleven years. And a most remarkable feature of these attacks was that each was preceded by the emission of a soft gelatinous lump, which *immediately* ushered in a flow of chylous urine.

When I saw him, he was passing urine that was as white as pure milk, which, upon standing a short time, would coagulate in the vessel so that it could be turned out like thin blanc-mange, and would retain the shape of the vessel. In the course of a few hours, however, this would disintegrate and liquefy. The addition of ether would instantly clarify it by dissolving the oil.

Quantitative analysis showed eight grains of oil to the ounce of urine.

The daily amount of urine voided was from thirty-two to fifty-four ounces, and the maximum of oil thrown out by this channel daily, half an ounce.

Careful search of the gelatinous lumps, which proved to be very tough mucus, streaked occasionally with blood, revealed the filaria, which I often found as numerous as thirty or forty in a small mass of mucus. This parasite resembled in size and general appearance the common trichina spiralis straightened out. At that time I had not heard of the discovery of Dr. Lewis, and did not therefore examine the patient's blood.

Shortly afterward, however, the second case came under my care. The patient was a middle-aged man, and had suffered for many years from chyluria, though, as in the first case, his general health was not much impaired.

Careful examination of this patient's blood revealed no sign of the parasite.

These cases were both successfully treated by turpentine, given in twenty-drop doses three times a day.

### TUBAL DROPSY.

DR. ABBE presented a specimen of tubal dropsy. The woman from whom it was removed died shortly after admission into the Roosevelt Hospital, and as the result of injuries received at the hands of her husband. The right Fallopian tube was distended to a size somewhat larger than a coil of small intestine, while the left Fallopian tube was somewhat smaller. The fimbriated extremities of each tube were matted to their respective ovaries and were stenosed. The uterus was bound down by pelvic cellulitis.

### GANGRENE OF LEG AND FOOT.

DR. POST presented a specimen of mortification of the leg and foot removed by amputation. The patient was a large, stout man, aged 50 years. In the early part of February he was attacked with pain and swelling in the right leg, for which he was sent to the Presbyterian Hospital, entering the medical side of the house, in the service of Dr. James L. Banks. On examining the limb, Dr. Banks discovered entire obstruction to its circulation. The patient was accordingly transferred to the surgical side and came under the care of Dr. Post. In the course of a few days the foot and leg became livid gangrene within a few inches of the knee. As soon as a line of demarcation had appeared at that point, amputation of the thigh was decided upon and performed. The operation was done that afternoon by the double lateral flap method. The femoral artery was found completely occluded by a firm, fibrinous plug. Only one small muscular arterial twig required ligature. In consequence of the density of the tissues a section of the bone could not be made as high at first as was desirable. At the point of section the medulla seemed to be diseased, and after some difficulty the bone was removed higher up through a healthy portion.

The cause of the plugging of the artery was not known. In the absence of any history of syphilis and of the existence of cardiac disease, it was thought that arteritis had occurred. The vessel was occluded from the groin downward.

Dr. Post presented the arteries of the lower extremity taken from a female patient, aged 80 years, who died of senile gangrene. She was admitted to the hospital several months ago in consequence of an injury to her thigh. The vessels exhibited were in an advanced stage of calcification.

### EROSION OF CARTILAGES OF KNEE-JOINT—AMPUTATION OF THIGH.

Dr. Post presented a third specimen which consisted of a leg removed by amputation, from a boy aged 19 years. Four or five months ago he came into the Presbyterian Hospital on account of an abscess of the thorax, below the axilla. When Dr. Post came on duty he found that the abscess had not healed, and that there were still slight traces of pleuritic effusion in the lower part of the chest. The main trouble, however, was a swollen and painful condition of the knee. The latter was bent at a somewhat acute angle, and it could not be moved without occasioning great agony. The patient was feeble and emaciated, and the presence of the disease in his knee-joint seemed to be an extra burden, which he seemed incapable of bearing. Amputation of the thigh was decided upon as the only means of giving him a chance for his life. Contrary to expectation, the patient bore the operation quite well. At the end of a week afterward his temperature was much lower than formerly, and the patient was free from pain.

The lesion of the joint was mainly in the erosion of the cartilages. The latter appeared as if made by a gouge. The epiphysis, which was not yet consolidated with this shaft, presented a small cavity near one of its edges, around which the bone was slightly softened, and which contained a little pus. That was the only disease detected in the interior of the bone. The bones of the extremity were light and porous, but did not present any marked disease. The disease which commenced in the articular cartilages was one of the rare forms, and was as usual extremely painful. In the substance of the thigh were several elongated abscesses which necessitated the use of drainage-tubes in dressing the stump.

DR. STIMSON thought there were some reasons for supposing that the plugging in the case of gangrene of the leg commenced in the veins. The inner coats of the femoral vein were softened and changed, the calf of the leg was infiltrated with partially decomposed blood, and before discoloration appeared there was œdema of the limb.

DR. BRIDDON did not see how it was possible to have such an occlusion of the artery, and so high up, due to primary plugging of the veins.

DR. A. E. M. PURDY presented a specimen of what appeared to be fibrinous casts of the bronchial tubes. It was expectorated by a calf.

The specimen was, on motion, referred to Dr. Liautard for a report.

### STRANGULATED FEMORAL HERNIA.

DR. STIMSON presented a specimen of strangulated hernia, removed post-mortem from a woman aged 48 years. She began to vomit on Thursday and continued to do so at varying intervals until Saturday, when a physician was called. Strangulated femoral hernia of left side was discovered, but no attempt was made at taxis. She was taken suddenly worse yesterday afternoon, and died at eight o'clock in the evening. At post-mortem examination the hernia was found to be nothing more than a mere knuckle of intestine.

### MULTIPLE ABSCESS OF BLADDER.

Dr. Stimson also presented a specimen of multiple abscess of the bladder, removed from a man aged 25 years, who, after a prolonged spree, was seized with retention. After a dribbling for forty-eight hours he

entered the hospital and died in about three hours. At the autopsy several interstitial abscesses of the bladder were seen, in some of which there was perforation. The latter condition was supposed, however, to be post-mortem. There was well-marked pyelitis on left side and a double ureter on right side. The right kidney was free from disease, due probably to the fact that on account of the two ureters there was left no obstacle to the urinary flow.

The Society then went into Executive Session.

## WEST CHICAGO MEDICAL SOCIETY.

*Regular Meeting, March* 10, 1879.

THE PRESIDENT, DR. BRIDGE, IN THE CHAIR.

### ANTISEPTIC SURGERY.

PROF. HENRY M. LYMAN opened a discussion on this subject. He showed that wherever and whenever in surgical practice great attention had been paid to details, to the care of injuries, to the cleanliness of wounds, and to the welfare of patients, the experience had been fortunate, and the rate of deaths low. Such had been the history of the antiseptic surgery of the day; it was the practice of attention to minutiæ, and would be attended with high success, whether a spray of some antiseptic fluid were used or not. It was his belief that the good results reported on all hands in the use of the Lister method were due much less to the spray than to the other influences referred to. He doubted the position of Lister regarding the effect of bacteria and the effect upon the latter of the spray.

One of the best antiseptics to apply to wounds in cases where they were poisoned was either alcohol or carbolic acid; these agents pickled the tissues. In healthy wounds they should be used with caution.

DR. PIPER thought there was evidence that carbolic acid had little or no effect on bacteria, unless in concentrated form.

DR. VAN BUREN had frequently noticed that wounds of mechanics, which they themselves had dressed by sealing up permanently with bandages and varnish, or some similar material, generally made very good recoveries. This he thought was an argument in favor of air-tight dressings for wounds, and for caution in meddling with them after such a dressing had been applied.

DR. BLINN referred to the cotton dressing she had witnessed in Paris. Huge piles of cotton batting were wrapped about stumps of amputations and left untouched 8 or 10 days after the operation, with invariably fortunate results.

DR. LEE had been for several months using the Lister process in the County Hospital, and liked it; but, practically, it was found next to an impossibility to carry out, in a single instance, *all* the details of this method. There was sure to be some mishap during the operation; some instrument or implement, or somebody's hands failed of being washed with the antiseptic solution, or the spray would be for an instant misdirected. He had never witnessed a perfect Lister operation. He was sure of the good results from air-tight permanent dressings with disinfected material when wounds were small.

DR. SALISBURY (house-physician) thought no deaths had occurred in the hospital from pyæmia after the Lister operation, except where it was known that the details of the method had failed of being carried out in all particulars.

*Regular Meeting, March* 24, 1879.

### TRAUMATIC INSANITY.

DR. D. R. BROWER read a paper on this subject and reported three cases. The first case was that of an army officer, who, before injury, was noted for his kindliness of disposition, temperance and affection for his friends and family. He received an injury of the head, a scalp wound, with possibly a slight injury to the skull, from which he apparently recovered. Afterward, his emotional disposition began to change; he would have cephalagia, at times very severely, and soon got to taking liquor to intoxication at these times. At such times he was suspicious, vindictive, and brutal, and would beat his wife and children. These attacks were fits of mania. They continued at intervals as long as the case was kept track of. The second case was that of J. K., lately tried in a local court for murder. He was an Irishman of middle age. Had been educated by a brother who was a priest of the Catholic Church, to which the patient was devotedly attached. He was naturally kind and peaceable. He received, while in the army, a head wound, involving the skull in a depression. Some months afterward he began to be suspicious of those about him at times; to have severe attacks of cephalalgia. Finally he would have attacks of *petit mal*, and the reporter thought there was, from the evidence, no doubt he had had two fits of *grand mal*. He had become estranged from most of his old friends; repeatedly left situations for the sole reason that he thought his employers and comrades were "down on him;" had acquired a mortal enmity toward the Catholic Church and the members of its orders. In his attacks of cephalalgia he was often thought dangerous by those about him, who kept out of his way. He had camphor about him constantly to keep evil spirits away. He woke out of a sleep one night and shot his wife who was beside him, and then shot himself. The wife died. He recovering, was tried for murder. The verdict was that the prisoner was guilty of murder, but that at the time of the trial he was insane. Shortly afterward he cut his throat in his cell and died.

The third case was of a man also tried in the local courts for the murder of his wife, but who, at the time, and at the time of the murder, was so unmistakably insane that nobody doubted it, and he was sent to the asylum. In this case the insanity was clearly traceable to an injury of the head, received years before, and which was followed slowly by, first, headache, then inattention to business, then by other more positive symptoms of insanity.

DR. BROWER thought these cases illustrated the chronicity and slow development of insanity from traumatic injuries to the head; the comparatively slight injury required often to cause insanity; the fact that cephalalgia is the first symptom, which is followed by emotional disturbance, which latter always precedes intellectual aberration, and finally, the general absence of anything like acute meningitis. He believed that in many such cases there was chronic meningitis. The teaching of cases like those described was, that no injury to the head was so slight as not to be important. At the same time it was true, hardly any injury to the head was so severe as to be despaired of.

DR. E. L. HOLMES related the history of a case of a naval officer, who had received a wound of the head from a shell. Recovering from the injury, as was supposed, he not long afterward began to be emotionally changed; was unreliable, soon became dissolute

in his habits—a thing unknown before his injury—and was quarrelsome. He was finally dismissed the service for drunkenness. On returning home, he was found to have symptoms of intoxication when he had not partaken of liquor, and was secretive as to his history while in the service. On his death, an autopsy revealed an abscess of the brain, just beneath the seat of injury in the skull.

Dr. H. M. Lyman related the history of several cases very similar to those reported by Dr. Brower. In one case there was a scalp wound over the left eye, made by a blow from a tin dipper. This healed. In three months convulsions occurred, and the wound reopened; hemiplegia took place. A post-mortem examination discovered an abscess of the left frontal lobe. In another case—that of a man in jail for some crime—there was found a considerable depression of the left parietal bone beneath a cicatrix. The man was dumb, he thought from aphasia, as he was able to make with a pencil, when asked the cause of his injury, a hieroglyphic, evidently meant to represent the word glass, which Dr. L. took to mean that the injury had been inflicted by a blow with a beer-mug. The man was moody, and fancied he was followed by some one. He was clearly insane.

Dr. A. B. Strong described the case of a lad who had received a kick from a horse upon the left side of the head, just above and a little in front of the ear. The scalp was cut, but he thought the bone was not fractured. Insensibility was at first produced, which disappeared rapidly. In four days there appeared suddenly paralysis of the left side of the face and the right arm, and aphasia. No other paralysis was present.

A slow recovery from the paralysis followed. The aphasia improved so far that, in a few weeks, the boy could talk well when free from excitement, but, on any perturbation of spirit, or an attempt to talk rapidly, he was dumb.

### PERIODICAL MANIA.

Dr. J. H. Salisbury read the history of a case of this character that recovered while taking antiperiodic doses of quinine. The patient was a man of twenty-five, a teamster, temperate, and healthy previous to the present illness. It was reported that two weeks before admission to hospital he had fallen from his wagon and was injured to the extent of scratches about the head. That night he had vomited. He was sane six days, although not well. On the seventh day he had a chill, followed by fever, and an attack of delirious mania. This subsided, to be repeated in two days. When brought to the hospital he was in a state of wild delirium, and had to have a strait-jacket. On admission his temperature was only 100° F., and the pupils were slightly dilated and alike. Bromide of potassium and chloral were given to quiet him, and he slept. Next morning he was quiet, but not entirely rational. He had no symptoms of acute meningitis afterward, but had several slighter attacks of maniacal delirium, occurring with no particular regularity. He was given five to ten grains of quinine each day. In a few days he had entirely recovered.

Dr. A. B. Strong exhibited a specimen of spinal column, illustrating the process of cure of Pott's disease by anchylosis.

Another specimen was described, which had been found in the dissecting-room of Rush College, in which there was complete bony anchylosis of the whole spinal column, of the attachments of the ribs to the vertebræ, and of the ribs to the sternum. No motion was possible, except perhaps a slight antero-posterior one of the upper two or three cervical vertebræ. The head could only be moved with a slight bowing motion. There was no deformity anywhere. Respiration must have been wholly diaphragmatic. There was no appearance about the body that indicated ill-health or lack of vigor. The individual was a male, and past the meridian of life.

### INTUSSUSCEPTION NOT SUSPECTED UNTIL AFTER DEATH.

Dr. C. W. Earle reported the case and exhibited the specimen. The patient was a woman of thirty, who had been healthy. She was nursing a baby a few months old. She complained of occasional attacks of slight griping pain in the epigastrium, occurring most during digestion. Pepsin and hydrochloric acid were prescribed. A week passed, and the symptoms got worse, the woman being up and about the while. As the bowels were constipated, some aperients were given, which were followed, first, by some slight dejections of hardened fæces, but, a few days later, *two full, free, and soft evacuations* occurred. In the meantime vomiting had come on, which persisted in spite of remedies. Once the ejection had a fecal odor. The patient began to show signs of collapse; no symptoms of fever existed at any time, and the mind was clear. Palpation discovered no tumor or spot of tenderness in the abdomen. There was no pain in the abdomen. An examination per vaginam revealed a tumor anterior to the uterus, pressing that organ forcibly downward and fixing it. Dr. T. D. Fitch, in counsel, thought it a case of pelvic hematocele with extensive loss of blood, causing the collapse. Dr. W. H. Byford also thought internal hemorrhage might account for the symptoms.

The patient died of exhaustion a little over a week from taking to bed.

The autopsy revealed an intussusception of the ileum six inches in extent. It was situated several inches above the ileo-cæcal valve, which was in no way involved. There were no adhesions of the peritoneum, except in the infolding of the gut; nor were there elsewhere in the abdomen evidences of inflammation.

The patient, Dr. E. remarked, was a person singularly insusceptible to pain. He had attended her in her confinement when she had *no pain*, even during the operation of extraction with the forceps, which required, to effect delivery, the exercise of an unusual amount of force. This fact might explain to some degree the absence of pain in the last sickness.

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Dr. Geo. B. Wood's Bequests to the University of Pennsylvania.—The will of this eminent physician, who has for many years been a liberal friend of the public institutions of Philadelphia, contains large bequests to the Philadelphia College of Physicians, the American Philosophical Society, and the University of Pennsylvania. Among these bequests is one of $75,000 to the University Hospital for the express purpose of endowing a special ward in that institution, to be called the "Peter Hugu Ward," in memory of Dr. Wood's father-in-law. Another, to the Medical Department, consists of a special trust involving an extensive plan of fruit-growing in the southern part of New Jersey.

There is a bill now before the Legislature providing an appropriation of $100,000 for the completion of the buildings of this hospital. It is to be hoped that this appropriation will be made, now that ample endowment has been provided by Dr. Wood for a considerable number of free beds.

# Correspondence.

## THE LUNG-PLAGUE.

NEW YORK, April 2, 1879.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In the number of the RECORD for March 29th, on page 303, an editorial on the lung-plague appears that is not, in my opinion, in keeping with the views entertained by "leading members of the veterinary profession in Europe" or our own country. The present scare about pleuro-pneumonia in cattle is certainly unwarranted. During the winter months simple lobular pneumonia, and occasionally circumscribed pleuritis as a complication, is a common disease met with in cattle where large numbers are kept near cities for dairy purposes. The animals are packed together in small space, the ventilation imperfect, and they are exposed to extremes of *heat and cold* by opening and closing of doors communicating directly with their apartments. I examined the animals at Blissville on three separate occasions in connection with several veterinary surgeons and medical gentlemen well acquainted with the history and pathology of the disease in Europe, and we were agreed that contagious pleuro-pneumonia *was not in existence*, and *we so reported*. Our report, *at that time* in the *minority*, has been reinforced by the post-mortem and microscopic examinations of section of the lungs taken, and lately by a letter to Prof. Smith, of Toronto Vet. College, from Prof. Williams, of the Edinburgh Veterinary College, who witnessed one hundred post-mortems of the American cattle slaughtered in Liverpool, said to be suffering from contagious pleuro-pneumonia. Williams reports that they suffered from *simple pleuro-pneumonia*, which was non-contagious.

In my experience, the incubative stage does not extend from one to sixteen weeks. During an enzoötic of pleuro-pneumonia, confined to the lower part of Westchester County, in the years 1875–'76, I received and treated 360, in some cases in cattle the incubative stage was short. On one farm in a dairy of 80 cows, three days after purchasing some cows from a drover, the invasion of the disease occurred, ushered in by a chill (rigors), elevation of temperature, thermometer registering 102° to 104° F., respiration increased in frequency, and became spasmodic in character and abdominal. Nostrils abnormally dilated; visible mucous membranes injected; suppressed cough; loss of appetite; the flow of milk arrested, and in the majority of cases entirely suspended until convalescent. Auscultation and percussion reveal abnormal sounds peculiar to disease of the respiratory organs. Convalescence sets in on the seventh or eighth day, and is completed in a majority of the cases on the twenty-first day. Under appropriate treatment 85 per cent. recover; such is my record, and in my opinion cattle that have passed through an attack are better suited for dairy purposes in an affected district than fresh stock. In experimenting with the milk of diseased cows, fed to calves, I have failed to produce positive results. At Blissville the mortality from the disease was slight. The majority of the animals were slaughtered, and sold in the markets as beef. This is not in keeping with a malignant disease *theory*. Again, in conversing and corresponding with veterinary surgeons and stock-raisers in various parts of the country, I have as yet failed to discover the innumerable quantity of animals affected, as reported in the daily papers. In conclusion, I sincerely hope that an appropriation will be made to study the best possible means of guarding against outbreaks of disease, but not for that antediluvian method, the stamping-out process.

Respectfully yours,

R. W. FINLAY, V. S.

No. 134 WEST ONE HUNDRED AND TWENTY FOURTH STREET.

## REMARKS ON JABORANDI.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Although jaborandi was first introduced to the notice of the profession in 1865, it is only within a comparatively recent period that its physiological effects and therapeutic uses have attracted attention.

During the last year, with a view to ascertaining more exactly the pathological conditions in which it might be useful, I have given it to a considerable number of individuals, both in health and disease, and have taken it in my own person in varying quantities.

The first effect noticeable after the administration of a full dose—50–60 grs. in infusion, or 40–50 m. of the fluid extract—is flushing of the face; this is followed in a very short time by an increase in the salivary secretion and profuse perspiration; these appearing in from ten to twenty minutes after taking it.

The pulse is usually somewhat accelerated; the temperature rises slightly at first, but soon falls to the normal, or below. Nausea occasionally occurs; but this has never happened to the cases in which I administered it, when the precaution was observed of expectorating the saliva secreted instead of swallowing it. In ordinary doses it produces little or no depression. In large doses, however, there are produced some prostration, exaggeration of all the effects previously mentioned, evident increase in the bronchial, nasal, and lachrymal secretions, and disturbance of vision.

Given to animals in excessively large doses, it causes, in addition to the effect upon the skin, mucous membranes, and salivary glands, great prostration, with staggering gait, convulsions, and death; intense congestion of the brain, spinal cord, lungs, and abdominal viscera being found on post-mortem examination.

Occasionally, when it fails to produce its usual effect upon the skin and salivary glands, it causes an increase in the flow of urine; under the same circumstances diarrhœa may be produced.

Given in a case of suppression of urine, accompanied by uræmic phenomena, following an attack of scarlatina, it produced little or no effect upon the skin or salivary glands, but notably augmented the flow of urine, the quantity being increased from ℥ viij. in twenty-four hours, to Oiij. in the same period of time. This effect upon the kidneys, although not the rule, is by no means an infrequent one in scarlatina. Prof. Demme (of Berne) has reported a similar result.*

An alkaloid has been obtained from jaborandi to which the name pilocarpine has been given. This alkaloid is the active principle, all the effects of jaborandi following its administration.

Upon one occasion I took of nitrate of pilocarpine one grain, by the mouth. In fifteen minutes from the time of taking, there was flushing of the face with suffusion of the eyes; this was soon followed by a

* Med. Exam., July 18, 1878.

flow of mucus from the nostrils, resembling very much that from an ordinary coryza, increase in the salivary secretion and profuse perspiration; these effects continued to increase for an hour, when they reached their height; dimness of vision now occurred which lasted for half an hour; perspiration literally streamed from every pore; the saliva constantly filled my mouth; the quantity expectorated in three to four hours, by subsequent measurement, was f. ʒ xvi. The temperature, which in the first half-hour had risen a degree, fell to the normal; the pulse was full and rapid, but became less so at the end of an hour. The effects of the drug continued from four to five hours, when they gradually disappeared, leaving no ill-effect behind. [The quantity of pilocarpine taken was excessive, ¼–½ gr. being the ordinary dose.]

A solution of pilocarpine applied to the conjunctiva produces contraction of the pupil, but I have never observed this result follow its administration by the mouth or hypodermically.

In the female, jaborandi produces an increase in the lacteal secretion, acting as a true galactagogue. Müller (of Berne) and Saenger (of Leipsic) state that pilocarpine stimulates the uterus to contraction when a tendency to expulsion already exists.

A marked antagonism exists between jaborandi and belladonna, all effects of the former quickly disappearing upon the administration of full doses of the latter, and Ringer has reported two cases of belladonna-poisoning, in which hypodermic injections of pilocarpine were followed by complete recovery.*

In consequence of its diaphoretic properties, jaborandi is a useful addition to fever mixtures, and in the first stage of bronchitis may be substituted for opium; but its therapeutic value is most evident in its effect upon dropsical effusions. It causes the effusions of pleurisy and pericarditis to rapidly disappear, but does not prevent their reproduction.

Prof. Pepper has reported a case of pericarditis with effusion, in which he derived marked benefit from its use.

It may be given with great advantage in acute Bright's disease accompanying scarlatina, in which there is suppression of urine and uræmic symptoms, or to relieve the anasarca which is a so frequent sequel of this affection.

In chronic Bright's disease it rapidly removes the œdema, but I have never found it to diminish the quantity of albumen in the urine, although such result has been reported. In patients suffering with diabetes insipidus it lessens the flow of urine, but does not exert a curative influence, the quantity of urine again increasing upon the suspension of the drug. Dr. Langet (of Rheims) reports that he has successfully treated the albuminuria of pregnancy with this remedy, and Chroynowski gave hypodermic injections of pilocarpine in puerperal eclampsia, no convulsions occurring after the first injection. In view of its action upon the uterus, it may be advantageously given during labor, and from its effect upon the mammary glands it is indicated in partial or complete suppression of the lacteal secretion.

The best form for administration is the alkaloid pilocarpine, in doses of ¼–½ gr.; from the smallness of dose and its complete solubility in water it is well suited for hypodermic use.

Children bear proportionally larger doses than adults, and its effects do not seem to be as certainly produced in them.

M. B. HARTZELL, M. D.

PHILADELPHIA.

* Lancet, Vol. I., 1875.

## LABOR, WITH PENDULOUS UTERUS.

TO THE EDITOR OF THE MEDICAL RECORD.

NOTICING a report of a case of pendulous uterus in the RECORD of February 1, 1879 (p. 112), by Dr. I. E. Taylor, I send a report of a similar condition complicated by a contracted pelvis and *breech*-presentation, which may be of sufficient interest to warrant publication.

The patient, æt. 30, mother of six children, experienced rupture of membranes at 4 A.M.; I was summoned at 5 P.M. and found that waters had been discharging at intervals throughout the day, but no pains of any character had been present. Upon examination I found the condition so fully *illustrated* in Dr. Taylor's report. The os uteri was *rigid*, and dilated but little. Child not engaged. Ordered morphia sulph., gr. ¼, to be given once in four hours, and to be summoned when necessary. At 7.30 A.M. I was called, and found upon my arrival that labor was commencing. The pains were of average character, sharp, and with but short intervals of rest. The os, upon examination, was found to be dilated the size of one-half dollar (silver), and *breech* presenting.

Anticipating trouble I sent for her former attendant as counsel, and proceeded to manipulate, applying the bandage as suggested by Dr. Taylor. The fœtal head could be plainly felt at fundus of uterus and most dependent part of tumor. Heart acting somewhat feebly. No motion since 5 A.M. By manipulation and gradual tightening of bandage I succeeded in restoring uterus and contents to something like the normal position by the time counsel arrived. Pains were less frequent, and showed a tendency to uterine inertia. Upon consultation, we decided to resort to ergot, and ʒ i. Squibb's fluid extract was accordingly given.

At my suggestion of instrumental procedure, Dr. Bartlett thought that nature would complete the task. But a short time proved how fallacious was the idea. We now proceeded to deliver with the blunt hook, bringing down the feet alternately. The breech was delivered without much difficulty, and after a time with strong traction and rotation; the shoulders were delivered after much difficulty; the arms were brought down, and head finally extricated. The uterus, with an additional (ʒ i.) dose of ergot, contracted well. No difficulty was experienced in delivering placenta, which came naturally, but was of very large size.

The time occupied was three hours. Weight of child, *thirteen* pounds. Fœtal heart could not be distinguished at commencement of operation. Patient had previously two instrumental deliveries of extremely large but *dead* children.

J. W. BROWN, M.D.

MOTTVILLE, N. Y., April 1, 1879.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 30 to April 5, 1879.*

POWELL, J. L., 1st Lieut. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Griffin, Texas, S. O. 65, Dept. of Texas, March 29, 1879.

SEWER-GAS AND EAR DISEASE.—CASSELLS (*Edin. Med. Jour.*, April, 1878), reports cases which prove that sewer-gas may be the exciting cause of inflammation of the tympanum and catarrh of the nasopharynx. Change of air alone cured the trouble.

# Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending April 5, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| Mar. 29, 1879. | 0 | 2 | 210 | 2 | 28 | 31 | 0 | 0 |
| Apr. 5, 1879.. | 0 | 1 | 164 | 1 | 16 | 31 | 0 | 0 |

THE LATE DR. JAMES M. MINOR.—At a special meeting of the Medical and Surgical Staff of the Brooklyn City Hospital, held March 29, 1879, it was resolved that the following minute be adopted, and that a copy be sent to the family of the late Dr. Minor, and also that it be published in the medical journals.

*Resolved*, In the death of James Monroe Minor, M.D., Surgeon Emeritus and President of the staff, our late associate, the Brooklyn City Hospital has lost a wise adviser and faithful friend. For above thirty years connected with this institution, his record has been characterized by a conscientious devotion to the best interests of this hospital. Assiduous in the performance of his specific duties as visiting surgeon, he has ever proved himself attentive and intelligent in consultation, and alive to all suggestions looking to the efficiency and improvement of the service. He had a singular interest in this hospital. Though long a resident of another city, he took the long journey hither with a regularity inspired by an affection born of years of service, and by an enthusiasm which never tired of asserting the advantages that were among the actual possessions and near possibilities of this refuge for the sick and suffering and centre of scientific research.

This intense interest made him keenly alive to the strictest and most impartial exercise of his duty in selecting applicants for admission to the service of interne. He was quick to recognize that the interests of the hospital would be advanced, not only by the scientific acquirements of the applicant, but by the promise given of industry and faithfulness. No examination passed by without some question from him directed towards testing the general accomplishments of the candidate. No one was more hearty than he in recognizing and encouraging the young men whose assiduity and enthusiasm were aroused in this work, and no one more suggestive or painstaking in helping them on.

This same quick interest showed itself, likewise, in his strong desire to perpetuate the enthusiasm and earnestness native to himself, in the recurring changes in his associates on the visiting staff. Set apart from personal ambition, his own labor the offspring of delight in scientific research, his whole instinct led him to desire that his associates should be similarly affected by a whole-souled devotion to the work. He had an especial fondness for the principle that, so far as could be, the young men who had labored here should be the future workers in duty and counsel.

His relations with his associates were marked by an invariable urbanity of manner and dignity of deportment which had their origin, not in the letter of professional ethics, but inborn in a tender and generous nature cultured by a large and liberal study.

His faithfulness, enthusiasm, and kindly manners are a grateful remembrance, and will prove a heritage of stimulus to all who have known and labored with him here.

S. FLEET SPEIR, M.D., *Secty.*

A NEW GYNÆCOLOGICAL OPERATING-TABLE.—Mr. Lewis Thompson, of Philadelphia, has lately constructed for Dr. William Goodell an operating-table based on that of Dr. M. D. Mann, of New York City, but presenting several valuable points of difference from the table invented by that gentleman.

Dr. Goodell's table is two feet and a half high at one end and two feet nine inches high at the other—its upper surface thus presenting an inclined plane (bringing the hips of the patient to a level above that of her head), four feet in length, and two and a half feet in width. By moving a crank at one side of the table, the "Sims' latero-ventral position" may be exaggerated, this side of the table being thus raised three inches above the level of the other side.

The two sides of the table forming the feet of these two inclined planes are protected by their upright strips of board, which prevent the patient from slipping off the top of the table. At one end of the table, which rolls on castors, is a drawer partitioned off so as to hold sponges, instruments, absorbent cotton, etc. A narrow strip of board, which is provided with a heel and which slides in and out of the body of the table beside the drawer, affords support for the ankle in the "Sims'" position.

Prof. Goodell has one of these tables at his office, and employs another at his clinic at the University Hospital.

A SUBSTITUTE FOR THE HORSE.—A number of country practitioners in England are employing bicycles or tricycles as a means of locomotion, and the use of these vehicles is increasing considerably. They do not supply the place of a horse entirely, but they enable the physician to do away with an extra one. The bicycles are made of iron and steel, the rim of the wheel being covered with rubber. Upon them one can travel over tolerably rough and icy roads and up quite steep grades. On good ground the rate of speed is a mile in five minutes; racing speed being, however, much greater. The ordinary rate of travel is eight or ten miles an hour. Tricycles are also made, which are safer than the bicycles and nearly as fast. In these the rider sits between two wheels which he propels by a treading motion; a third and guiding wheel is placed in front. There are very likely many places in this country where this mode of locomotion could be used with advantage.

NEW PROFESSOR OF CHEMISTRY IN THE PHILADELPHIA COLLEGE OF PHARMACY.—Professor S. P. Sadtler has been elected to the chair of chemistry in the Philadelphia College of Pharmacy, in the place of Robert Bridges, M.D., who has recently resigned. Professor Sadtler studied chemistry at Lehigh University, Pa., also subsequently with Professor Walcott Gibbs, and spent a year and a half at Heidelberg. He was professor of chemistry in the Gettysburg College for three years, and he now retires from the professorship of general and analytical chemistry in the scientific department of the University of Pennsylvania, to take the position to which he has just been elected. Professor Sadtler is the American editor of Attfield's Chemistry, and is well known as a writer on chemical subjects.

# Original Communications.

## EYE TROUBLES IN GENERAL PRACTICE.

By HENRY D. NOYES, M.D.,

NEW YORK.

(Read before the New York Academy of Medicine, March 6, 1879.)

GENTLEMEN—Fellows of the New York Academy of Medicine: The winsome ways of our honored and courteous President have brought it about that I am to read to you a paper upon a topic which may seem to convict me of a disposition to undue assumption. I have been seduced into consenting to offer you various suggestions derived from my field of work, which you may utilize in your own practice. I am not in the least reluctant to impart any acquisitions or methods, or deductions of my own, which others can profitably share, but I shrink from a position of didactic pretension to which I am not entitled. With this plea in extenuation, and promising that my contributions will be on matters of ordinary occurrence in general practice, may I not crave your indulgence for what is the same old story which was told in the beginning, when Paradise had not yet been invaded by the obstetrician, viz., the Professor tempted me and I consented.

Thus, Mr. President, having cast upon you the responsibility, both for my appearance and my topic, I salute you and enter upon my task. To the family physician the community give their confidence in a peculiar and sacred sense. Though specialties multiply and demonstrate the necessity for their being, by successes which are only attainable by diligent devotion to small fields, it will ever be true that the family physician will be the one to whom will be made known, or upon whom it will devolve to make known, the beginnings of disease, of whatever kind; and moreover he will, as now, have in his hands the treatment of many affections to which specialists devote themselves. I come to-night begging you to accept hints which may quicken your perception of the early stages of important defects of sight, may help you in curing diseases of the eye, and may make you more capable of judging when you are in the presence of such of its maladies whose proper management calls for highly trained skill.

Let me first call your attention to the importance of recognizing at an early period in the life of children the existence of serious errors of refraction. Some of them are always congenital, viz., hypermetropia, or far-sightedness, astigmatism and cataract. Another error, viz.: myopia, or short-sightedness, is not usually congenital, but begins at the time when children give steady attention to books. It will vary in its commencement between five and twelve years of age. At the same time very young children are sometimes the subject of extreme myopia, and then its congenital character is highly probable. This deduction is also worthy of belief when persons at twenty or twenty-five years of age are found to have myopia greater than $\frac{1}{4}$.

To put this statement into tangible form, let me offer you some statistics, kindly compiled from my private records of the last nine years, by my friend Dr. Callan. Out of 1,400 cases of erroneous refraction there have been found 102 cases in very young persons who had the high and highest degrees of refractive error, viz.: 55 of myopia, or short-sightedness, 29 of hyperopia, or unnatural long-sightedness, and 18 of astigmatism. The remarks above made are most emphatically applicable to these individuals, and in lesser degree to many others not quoted. I may mention a boy, H. B., nine years old, who had myopia $\frac{1}{4}$, with vision by glasses of only $\frac{20}{100}$. This lad, in delicate health, had never had glasses, and consequently had never seen anything a foot beyond his nose. All beyond was mist and mystery. He was excessively reserved and taciturn, with no animation in face or manner—unwilling to play and undeveloped in strength. A few months' experience with glasses made him a different boy in his whole appearance and character. My records will furnish many such illustrations, but I need not consume your time in presenting them. Without holding forth the extreme cases, the argument on behalf of the little ones is sound and cogent, even though they are not so distressingly afflicted as are the worst.

To this I must add the remark that proper care on the part of parents, school-teachers, and physicians, can do much to prevent or retard the acquirement of myopia at the age when it is most likely to appear, viz.: between five and fifteen. On this point much has been written, and I merely allude to the subject.

The points which I desire to impress are, that the want of suitable aid to sight, in cases so aggravated as the above, not only inflicts upon the children unnecessary discomfort and privation of enjoyment, but it has a bearing upon their character and development which is most unhappy.

As the young mind reaches out to the surrounding world, by aid of touch and taste and hearing and sight, it reasons upon the impressions brought to it, and accepts the messages which the senses deliver, as absolute truth. Of course the reasoning and collating power is at first most feeble, but as the mind gathers force it still trusts the couriers who describe the characteristics of the world outside of consciousness; and if the messengers bring falsified, or garbled, or distorted reports, the mind must be hopelessly deceived and perverted. A child may be thought a dullard, and to have no aptitude for observation or learning; he may be counted cold-hearted and unresponsive when his face does not light up at the smile of his mother or the caress of his sister; he may be esteemed sullen or stupid; he may be counted a bad playfellow; he may be thought eccentric or peculiar because he does not behave like other children. All this and more may be the character ascribed to him because his misfortune is to have bad sight. Beside this, it is a truth in mental philosophy that exactly such a character may be fastened upon him for life, because in his young days he was cut off from enjoyment of the visible world on terms of equality with his fellows. Do we not know that dim-sighted persons are apt to be queer? If their deficiencies had been noted and corrected at an early stage of life, who can say how much more symmetrical would have been their adult character, and how much happiness society and the family might have enjoyed from them.

I therefore beg to ask that if your attention is called to young children whose traits of character excite surprise, and who are considered to be strange or deficient, that you will make inquiry whether they possess good sight, and to this I may add with not less force that the possession of good hearing is in its way equally important. For the very young, viz., those under five years of age, tests of reading may not be applicable; but happily in our day the trained observer can quickly decide by the ophthalmoscope whether any error of sight exists, and also point out

the remedy irrespective of intelligent answers or co-operation on the part of the child.

I would not hesitate to give a young child the use of needful glasses for at least such periods of time as should serve to inform his mind of the true character of surrounding objects, provided the ocular defect were great enough to obscure or pervert his perceptions. In respect to congenital cataract the same remarks apply, and I mention this condition to bring out the fact, that there may be a most serious loss of transparency in the crystalline lens, which will not in the least be visible to ordinary inspection, and the pupil shall have the normal degree of clearness and blackness. The ophthalmoscope will unerringly discover the lesion, and the proper treatment will follow. Moreover, the operation ought to be done early—in healthy children by the end of the first year.

To the same category belongs, in a degree, the subject of strabismus, the foundation of which is erroneous sight. The order of events is first visual error, and then disturbance of muscular action. It often happens that if the visual error be corrected, the muscles will redress themselves, provided they have not undergone organic shortening. If this result be attained, the cure is much more likely to be of that perfect kind, which includes the obtaining of proper binocular vision, rather than that incomplete cure which makes the eyes look as if they worked together harmoniously, but consists really in the use of but one eye at a time. I grant that the defect of sight in one eye is often incurable, and that the best result may be impossible; but this misfortune should not be an excuse for omitting to discover the visual error and its quality. I do not mean that an operation can be often avoided, but I insist that the first step is to recognize the visual error before the muscles have undergone permanent perversion. Among the most intelligent persons who bring their children for examination at the very beginning of squint, I have, in not a few instances, been able, by the timely suggestion of glasses, to aid the child's sight so much that the disposition to squint has been kept under control, and the function of co-operation of the eyes been preserved until the age arrives when an operation may be most appropriate. Such treatment is the ideal method of dealing with squint.

Another matter may be briefly touched. As with the arrival of middle life the focussing power of the eye declines so far that for the usual reading distance a sufficient reserve of adjusting force no longer exists, it is decidedly the preferable thing to put on weak magnifying glasses to take off the strain, rather than to postpone their use as long as possible, either on the plea of avoiding permanent dependence on them, or because of the fear of seeming to be growing old. Not seldom the token of need of help is found in irritation of the lids, in styes, in a sense of worry about the eyes, as well as in difficulty in seeing by evening, or inability to make out the fine print of the newspapers. Every one knows that holding the book at arm's length and drawing near to the window are infallible tokens of the coming need, and yet some will stoutly resist, until, as a gentleman said to me, they need to hold the book with a pair of tongs.

I pass now to certain other matters which are partly hygienic and partly within the domain of pathology. A large class of chronic or recent invalids are surprised and distressed to find themselves unable to command the services of their eyes as they once could. Often they are alarmed with fear that organic mischief has befallen their sight. No persons present this symptom so frequently as do those who suffer from uterine disease. It seems to matter little what may be the special form of lesion of the female generative system. They suffer from enfeebled endurance of accommodation, and equally feeble power in the extrinsic ocular muscles. They do not so much complain of indistinct or blurred vision, as of pain in attempting to read or to sew, etc. The pain may come after a little effort, or it may be constant. In extreme cases the patient cannot look in the face of one with whom she is conversing without exciting neuralgic pain. This condition is very widely prevalent, and it must have forced itself upon the notice of every observing physician. So, too, when persons are recovering from any severe illness, such as a fever, or from protracted exhaustion, or after prolonged lactation, or watching with invalids, or great loss of sleep; when there has been much grief and weeping, or after severe mental strain; also as a consequence of masturbation, or after severe loss of blood, or in severe or chronic dyspepsia, impaired eye power is pretty sure to appear. I only give utterance to your own experience when saying this, but permit me to go a little farther and say that while in the above situation the essential condition to recovery lies in restoration to vigor and sound health and habits, certain additional points are worthy to be remembered. One is, that to such people graduated use of their eyes, beginning with short periods and advancing by small additions, is a valuable means of helping them develop and recover their ocular energy. We know this plan of treatment under the name of Dyer's method. Similar to this is the use of prisms to help the power of the ocular muscles as dumb-bells call forth the strength of the arms and shoulders.

Moreover some of these patients are destined to remain chronic invalids. I utter no malicious sarcasms upon my most esteemed friends the gynæcologists, but all their patients do not get well. To such women who pitifully implore the oculist to give them some solace for the weary hours upon the sofa or in the house, it is of the highest importance to discover and to note deviations from normal states of vision, which to persons in health are of absolutely no moment. Slight degrees of far-sightedness, trifling degrees of astigmatism, must in these cases be accurately corrected by glasses, and often the relief is most keenly appreciated. So, too, faintly tinted glasses are of use, and perhaps the most common relief is found in combining weak magnifying-glasses with abductive prisms. Such persons complain of glaring light; they almost always have irritable and congested conjunctival membranes. Treatment of their eyelids and regulation of the light is of no small value. The great necessity of carefully regulating all their hygienic conditions and doing this with detail and precision I need not dwell on.

Above and beyond these cases in pathological significance are the cases of intense hysterical photophobia, or intolerance of light. Fortunately they are not frequent, but they make up in malignancy often what they lack in frequency. In some of them there will be real optical error, or perhaps erosion of corneal epithelium, but behind these lesions is a perverted nervous system, a weakened moral nature; sometimes we find the invalid's eager craving for sympathy and condolence, the gratification of a strange passion for being pitied and coddled and made the centre of a worshipping and ministering family circle. Such patients call for great firmness, tact, and penetration. They are like the bedridden girls whom no arguments can convince that they are able to get up if they will. I for a long time kept in my possession a

quilted mask made of pasteboard, cotton, and thick cloth, constructed to go from the top of the head to the mouth, which was worn like a visor by a patient who would not allow me to take it off or have the least glimpse of her eyes. By putting her under chloroform I convinced her she could face the light and I robbed her of her visor. For a certain period she was made much better, but again relapsed.

To return to the eyes of weakly people who are only too anxious to comply with suggestions aimed for their good. In the first place, they need much comforting and encouragement. They should always be addressed hopefully, not to deceive them by promises of perfect recovery, but that they will at least attain a degree of ocular function which they can rely upon for permanent use, and that they must have care for eye strength as for any bodily strength; that they will not lose their sight, and that if they get well in health their eyes will in the end be restored. Moreover, if they have had to use glasses they will probably put them away, as other patients get rid of canes and crutches, and plaster-of-Paris jackets, and the whole pitiful list of surgical testimonies to our physical frailties. To persons who do not enjoy good health certain precautions in the use and exposure of their eyes are important. Ladies who suffer from painful menstruation should not read when lying in bed at the time of their menstrual flow. Reading while lying down is almost always trying to weakly persons, because the usual method of directing the eyes is interfered with, and the ocular muscles do not act in the combinations and proportions to which, for reading in the erect posture, they are habitually adapted. To such persons, thick veils or dotted veils, or the so-called glistening illusion veils, or heavy crape veils, cause worry and retinal irritation. The modern styles of bonnets leave the eyes without any protection from the sun and wind, therefore umbrellas and parasols, or colored glasses, become needful to the sensitive. To such it is hurtful to read in railways or carriages; and to them an atmosphere of smoke, or the air of an ill-ventilated or crowded and brightly lighted room is offensive; ofttimes the viewing of a multitude of persons, or a walk along a crowded street, is painful, just as bright and flashing light or strong colors are disagreeable.

Let me here allude to the grave mischief engendered in closely packed dwellings, where no proper supply of pure air is furnished, such as in tenement-houses, over-crowded asylums, and poor-houses. In them the degeneration of health, besides manifold other ills, may bring on granular conjunctivitis. The follicular deposits and hypertrophy of tissue soon find occasion for sudden aggravation in a slight cold, and then the contagious secretion is carried from one to another until many fall victims to the miseries of this chronic disease. One who has seen much of eye disease feels most intensely how sad is the future of the tenement-house poor who contract granular conjunctivitis.

Having touched upon the subject of granular conjunctivitis, let me call attention to the loose way in which this condition is sometimes asserted to exist. Many times have I known a state of simple hyperæmia declared to be granular lids, and the disease treated, perhaps, with sulphate of copper in crystal. Let me only say that it is essential to granular conjunctivitis that there be thickening of the membrane, either in minute globules, or over an extended area. Moreover, that the theory of treatment is to stimulate the tissues to absorption of the morbid material, and not to actually destroy and remove the morbid thickening, as is done in ulcers of the skin and in granulating wounds. Hence, the stimulating remedy must not produce an excessive action. But the details of this subject would lead us too far for me to enter upon them.

Some words about conjunctival hyperæmia of the lids will, I think, be fitting. The cases I have in view are not severe; there is often nothing wrong to be seen until the lids are turned over, and then a varying degree of congestion is all that appears. For this, an astringent is usually ordered, either an outward lotion or drops, and among the latter, perhaps the most frequently ordered is the very worst in my esteem, viz., sulphate of zinc, usually gr. ij. ad ʒ j. It is possible that this slight local trouble comes from cold, or overwork, or outward irritation; in such cases, the treatment will often be effective.

But I have to insist strenuously upon the fact that a large proportion, and I believe a considerable majority of such cases are connected with various forms of optical or muscular error, viz., all the forms of defective refraction and weakness of sight, and the cases of partial or incipient cataract. Not even are the amblyopic affections excluded. The explanation is most simple, viz., that whatever causes difficulty of sight, excites irritation of the conjunctival vessels. The symptoms are burning, dryness, heaviness, stickiness, scratching of the lids, and other similar sensations. Now the cure for these cases is to ascertain the cause; if possible, remove it, and also apply the soothing or alterative topical remedies.

Besides the above causes of conjunctival irritation, there are some which are to be looked for outside of the eye. One which I would most urgently bring forward is chronic nasal catarrh. In our climate this is one of the most common conditions, and it extends its hurtful influence upon all the special senses except touch. Hearing, smelling, taste, and sight are all more or less damaged. To the eye the mischief comes in troubles of the lachrymal passages, and of the palpebral and ocular conjunctiva. For six or eight years I have been compelled to treat nasal catarrh with energy and regularity, in order to enable me to cure chronic conjunctivitis as well as chronic and acute otitis media.

Another lesion, which has similar affiliations, is marginal blepharitis, the ophthalmia tarsi. True, this may be only a local and idiopathic affection, but my observation long ago taught me that the persons who had it were often subjects with optical errors, or with nasal catarrh. In this I quite agree with my friend Prof. Roosa, who has written upon the subject. The local treatment by the application of a sharp point of nitrate of silver to each little ulcer, followed up by cleanliness and a stimulating yellow oxide of mercury ointment, will readily cure the disease; but to keep it cured requires correction of the optical error, in case this should exist.

Let me offer a few hints on treatment of conjunctivitis. I do not pretend to set forth what ought to be done in all ordinary cases, but simply speak of certain special and rather unusual conditions. The form which occurs in new-born infants is, in the vast majority of cases, easily removed by luke-warm water, or by such simple astringents as alum or borax. But the decidedly purulent form, with puffy lids and creamy discharge, cannot be safely left to such means. I would not speak to a point which seems so self-evident, had it not been suggested to me by the remark of a medical friend that, having attended 1,500 confinements, he had never seen but three or four cases of bad sore eyes among babies, and when he asked me to assist him in caring for one such bad case, he was con-

siderably surprised at the treatment which I instituted. The lids must be thoroughly everted, and to the red and swollen membrane, as it unfolds, a solution of nitrate of silver, five grains to the ounce, must be well applied by a brush; both lids must be thus treated, and the application repeated as the discharge again becomes thick, viz., in from twelve to twenty-four hours. Meanwhile careful wiping away of the secretion, the use of an alum solution, and greasing the skin to avoid excoriation are in order. The caustic to the everted lids, in severe cases, is what I have to emphasize, and this, in *bad* cases, will be ten grains to the ounce, or be the mitigated stick, one part to two. Should the cornea be threatened by perforation, other and skilful advice ought to be summoned, as paracentesis, etc., may be needful. Again, in the violent forms of purulent conjunctivitis in adults, whether gonorrhœal or not, besides continuous application of iced water and the use of caustic, I lay great stress on the relief of the pressure of the swollen lids by deeply and extensively incising the outer commissure—to do this when the lids are much swollen—and to repeat incisions in this way as the wound grows together, and the œdematous conjunctiva threatens the vitality of the cornea. I am most deeply persuaded of the value and imminent necessity of this proceeding in severe cases.

For the great number of cases of decided conjunctivitis nitrate of silver is the best remedy, and rarely, in my judgment, does it need to be more than gr. v. or x. ad ʒi. But cases arise in which this remedy fails to cure. We find this fact among old persons, and in hydræmic subjects. I have also seen it in young infants. In fact, however, it is no easy thing to thoroughly turn the eyelids of a baby of a week old inside out; not a little skill in manipulation is often necessary to do it well and with unnecessary pain. The normal way in which the nitrate of silver acts is as follows: the caustic makes a slough of the epithelium; this is cast off with serous transudation, and the unloaded vessels then find relief, and the emigration of pus-cells is abated. Such is the process in the vigorous, and when the pus again appears in quantity, the application is renewed; but to the feeble, and especially the old, the tendencies are to less vigorous action, and the recrudescence after the slough comes away, is less perfect. In fact, the formation of pus may be made more abundant than before. For such cases the remedy is tannin in glycerine, gr. xx. to lx. ad ʒi., painted upon the everted lids. Its action is most satisfactory and direct. So, too, for œdematous inflammations, with little purulent or mucous secretion, but with the tissues loaded with serum, a solution of tannin in water will sometimes act like magic. Such, at least, was the testimony of one of our most distinguished surgeons, who enjoyed opportunity for personal experience of this bit of therapeutics.

May I say a word about treatment of inflammations of the cornea. A well-settled axiom is, that during the acute period of trouble, stimulation is out of place; but as the stage of intense hyperæmia, intolerance of light and pain abates, the eyelids may, with advantage, be touched with solution of nitrate of silver gr. iij. or v. ad ʒi. It is in the subacute stage of the phlyctenular form that the yellow oxide of mercury gr. ij. vel x. ad ʒi. of vaseline or amylo-glycerine sometimes does admirably. But in acute periods, atropine and warm fomentations are the proper thing. I am not attempting a resumé of this topic, but I wish to lead up to three suggestions, viz.: that the fluid extract of conium can be used with great benefit, notwithstanding some dangerous results have been reported from overdoses, as a means of overcoming the palpebral spasm, which is a great aggravation of the corneal irritation, and that bromides are also clearly indicated in the same condition.

Very severe cases would be likely to demand experienced advice, and I may say that paracentesis of the anterior chamber and sometimes iridectomy I have found of immense use in some bad cases.

A combination of severe keratitis with iritis is an unhappy condition, and the bad cases will seldom yield to anything short of iridectomy. As to purulent inflammation of the cornea,—this occurs from direct injury, as by a bit of stone or steel, or as a result of great debility, or from anæsthesia of the cornea. On the last head I beg to remark that an imperfect degree of sensibility in the cornea is, I have lately found, much more common than is usually supposed.

In all these conditions, if the cornea be deeply or extensively infiltrated with pus, nothing can compare in efficacy with the free division of the structure horizontally across the cornea with a fine Graefe's cataract-knife. Precede and supplement this proceeding by atropia and steady continuance of warm fomentations, and the damage suffered by the eye will be far less than would otherwise take place. I could fortify this assertion by many cases, and I emphasize it as confirmative of the practice first introduced by Prof. Saemisch, of Bonn. As to cases of pus in the anterior chamber, with infiltration of the cornea, the lesser degrees need no surgical interference; but when the plastic or purulent material rises to occupy the lower third of the cornea, I decidedly advocate its evacuation by a free paracentesis. This is a painful operation, and may be worthy of the administration of ether. In these cases the wound heals at once, and possibly the hypopyum may form again and need a second discharge. Whereas, in suppuration of the corneal substance, the wound above advocated continues open for days and allows the fluids to drain away, to the great relief of the eye. At a later time, when the eye has recovered, an iridectomy will confer valuable sight.

I must, perhaps, guard myself from misapprehension of my meaning as to the rules of treatment, by saying that general measures of a supporting and tonic kind, generous diet and stimulants, rest in bed, avoidance of light and of irritating causes, are all supposed to be made to contribute to the desired result.

Keratitis in children is always a distressing and tedious affection. Whatever its form, the severe symptoms are the extreme dread of light, and pain, while there is always more or less danger to sight. The great difficulty of treatment is how to get local medication into and upon the eyeball. If the child refuses to open the lids, and they are often by reflex irritation incapable of doing so, there is little use in trying by the fingers or by elevators to separate them. The attempt inflicts great pain, and the view of the eye is unsatisfactory. After the disease has lasted long it is very common to find an ulceration of the skin at the outer commissure, and this is torn apart whenever the lids are forced open. This is a serious aggravation of the blepharospasm which the corneal inflammation first excites. The great remedy for extricating one's self from the embarrassments of treatment, and for giving relief to the suffering child, lies in the administration of chloroform. It was long noticed by myself and others, and Mr. Hutchinson, of London, has, with his customary acuteness, written upon it, that to give chloroform not only enables the physician to see and treat the eye, but by its narcotism has a permanent good influence on the disease

by abating the nervous spasm. Therefore, when a child has acute corneal inflammation, and buries its head away from the light and obstinately shuts up its eyes, give it chloroform so as to bring on the first quieting influence; then the state of the cornea can be inspected, an atropine solution can be freely dropped in, the lids can be everted, and to their congested conjunctival surface a solution of nitrate of silver—gr. ij.-v. ad ʒ i.—may be applied; or, in the later stage of the malady, the yellow oxide of mercury ointment —gr. ij.-v. ad ʒ i. of amylo-glycerine—may be used. Besides this, seize the opportunity to apply a pointed crayon of pure solid nitrate of silver to the skin-ulcer at the outer commissure, and freely apply it also to the abrasions which will often be found about the nostrils, lips, and chin. From these latter abrasions the scabs must be forcibly wiped away; and though the raw surfaces and fissures will often bleed, the caustic should be fully applied and the parts afterwards dressed with simple or medicated cerate. I merely give these hints as to the handling of a very common and troublesome class of cases, without attempting to depict the full treatment which must be instituted under the various stages and conditions and phases of the disease. This may be learned from the usual text-books.

Likewise may I offer some hints as to the management of iritis. For my purposes I may enumerate four principal causes of iritis—injury, syphilis, rheumatism or gout, and gonorrhœa. As to traumatic iritis, I may say in general, that the management consists in rest, exclusion of intense light, lotions of cold water and atropia, with or without leeches. The rheumatic or gouty form has these features, that when fully established it yields very slowly to treatment; that it exhibits little plastic exudation, and often is of the œdematous variety; that the patients often suffer much pain, and that the local application will generally have to be lukewarm, and will in any event not be well tolerated; that atropine must be used with moderate vigor, sufficient to dilate the pupil; and that leeches often do much good in acute cases, while paracentesis is not seldom in bad cases a valuable resort. In this class of cases, constitutional treatment is of high importance, and this will usually be of the alkaline variety. As to the merits of salicylic acid I cannot speak. Iodide of potassium and colchicum sometimes do good service, but I have found the alkalies of the greatest use. Frequently has it been possible, in subjects prone to rheumatic iritis, to abort an attack by full doses of sal Rochelle, or liquor potassæ and Vichy water. With some persons attacks are very frequent, and they depend on imperfect action of the excretions. I make it a point with such patients to insist on a great deal of outdoor exercise, on careful attention to the skin as well as to the kidneys, and occasional Russian baths. Gonorrhœal iritis is only a sub-variety of the rheumatic form, and I mention it to indicate my conviction of the potency of urethral inflammation to be the cause of iritis as well as of rheumatism. I could cite cases which have proven this relationship, and that the control of the urethral trouble was necessary to the speedy cure of the eye trouble.

Finally, upon syphilitic iritis I beg to say that in the moderate cases, the local or atropine treatment is the most essential. As to the type of the inflammation, there may be every variety of pathological lesions; but when a case of iritis exhibits a rich amount of plastic exudation, it is pretty surely syphilitic. I emphasized the use of atropia. The solution should be four grains of the sulphate to the ounce; the frequency must be governed by its ability to secure expansion. Once every two hours, or four times an hour three times daily, or with any frequency needful to dilate the pupil, is the rule. The necessity of using it vigorously is too often not appreciated. The obstacles to dilatation of the pupil are, the difficulty of forcing any solution to pass through the saturated cornea by endosmosis, the fulness of the anterior chamber, the reluctance of the iritic muscular fibres to contract because the vessels are congested, and the mechanical opposition of the adhesions to the lens. The iris rests in contact with the front of the crystalline lens, both when the pupil is contracted and when it is dilated; hence, whatever the degree to which the pupil may expand, adhesions can occur and offer resistance to the remedy. The efficacy of the remedy is often enhanced by local depletion, viz.: by four leeches to the temple, placed far away from the eye. The reduction of congestion of iris vessels is favorable to the endosmosis of atropine solution. Unhappily, certain disadvantages attend the vigorous use of atropia. It causes conjunctival irritation with some people, although the solution be wholly free from acid. Some persons experience the symptoms of constitutional poisoning before the requisite local influence is secured. The substitution of daturine has sometimes served to circumvent this difficulty, and we are now in possession of a new agent called Duboisia, of which only the extract has yet come into this market, and which is asserted to be free from some of the objectionable qualities of atropia. On this I cannot offer any experience.

I strongly emphasize the beneficial change which always passes over a case of iritis, when success crowns the effort to enlarge the pupil to the uttermost. Let this effect be attained, and the vast majority of cases are speedily relieved. Should this not be possible, a different future is to be expected. Extensive pupillary adhesions will surely entail protracted inflammation, and cause mischief to sight, not only by the obstruction of the pupil, but by the accompanying haziness of the vitreous and lesions in the choroid. So disastrous is this condition that iridectomy may be done, and even *must* be done, during the height of the inflammation, and with greatly beneficial effect. Adhesions of the pupil are the great cause of obstinacy in iritis, and of the repetition of attacks.

While so much has been said of the local treatment, I am bound to advert to the constitutional treatment of syphilitic iritis. Do we need it to control the inflammation? In two conditions I think we do, viz., where there is a large amount of plastic exudation coming out in yellow masses on the surface of the iris, and also in certain cases of total pupillary adhesion. Under these conditions I recognize the need of using mercurial inunction vigorously, and can testify to its ready and happy influence. But for the common run of cases the constitutional treatment is employed only because the patient has secondary syphilis, and is not an essential factor in curing iritis. Therefore we do not ptyalize every case of iritis *secundum artem*, as was formerly held to be sound practice. But we administer the constitutional treatment according to the rules which the state of the general system imposes. Let me here remark that while iritis usually comes among the events of secondary syphilis, it may also appear during the tertiary stage of the disease.

A few words now on diathesis as recognizable in inflammations of the eye. It was the nosology of former times to designate a scrofulous ophthalmia,

and rheumatic ophthalmia, and catarrhal, and syphilitic, and abdominal ophthalmia, etc. We no longer use these terms except as they indicate our views in causation; but they have no meaning whatever as descriptive of any special phases of disease in the eye. It is impossible to pronounce in a given case with any better accuracy than good guessing, what is the constitutional condition associated with an inflammatory disease of the eye. It cannot be asserted, except in a vague way, that one case is scrofulous, another rheumatic, and another syphilitic, except by getting information from other symptoms. Of course I admit that weakly patients, and those who are badly nourished or cachectic, will have a type of inflammation differing from that of the robust, but beyond this general statement it is not safe to attempt to refine.

I grant that for successful treatment the constitutional condition must be accurately appreciated, but we learn this by interrogating the system, and not by looking only at the eye.

I want to say something on the subject of sympathetic ophthalmia. Every physician is consulted respecting cases of injury of the eye. All know that instances occur where the remaining eye subsequently is inflamed, and may be lost through an injurious influence exerted upon it by the damaged eye. It is of the highest importance to know first what classes of injuries are likely to exert this pernicious sympathy; and secondly, what are the early signs that it has begun.

The injuries most prone to cause mischief to the second eye are: 1st, when foreign bodies enter and lodge in the organ; 2d, when the eye is badly lacerated, especially in the region just behind the cornea; 3d, when the crystalline lens is dislocated; or 4th, when the iris is extensively caught in a wound or cicatrix. The time when such trouble may begin can be as early as three weeks or six months, or as late as two years or twenty years. The eyeball likely to cause such mischief is one in which attacks of inflammation now and then occur, and, above all, one which is sensitive to slight pressure of the finger. If a damaged eye which has recovered from the first effects of its lesion cannot bear moderate pressure without causing pain, that eyeball or stump ought to come out.

What are the *symptoms* of sympathetic trouble? They are of two general classes; first, those which implicate the general usefulness of the eye; secondly, signs of inflammation of the iris, choroid, optic nerve, and retina. As to the first, the person complains that he cannot use his eye, it easily wearies, it runs water, it is sensitive to light, yet its vision may be perfect. There may be conjunctival hyperæmia, but no other lesion. Unless some clear cause for complaint can be found in special defect of the eye to account for these symptoms, such as astigmatism or far-sightedness, etc., the damaged eye must come out to protect the good one. But a more subtle and dangerous condition is a low form of iritis, called serous iritis, which will not give pain, and not command attention, especially among children and ignorant persons, although it will somewhat impair sight. A more intense degree of inflammation, an irido-choroiditis, may occur, and these are severe forms of lesion which are sure to attract attention. For these patients a grave responsibility must be assumed. In some of them the enucleation of the injured eye seems to excite rather than allay the sympathetic trouble—such is the last scientific utterance on this subject (see Mauthner, Vorträge, etc., 1879); and reflection on some cases, in my own experience, inclines me to accept this statement with respectful attention. For other cases enucleation must be practised at once, and it banishes the dreaded disease as by magic. For the advanced cases enucleation is impotent; it does neither good nor evil. Hence, in a juncture so critical as when a fellow-being asks for counsel as to what is to be done to preserve him from the misery of total blindness, a large experience and skilled observation must be the basis of sound advice. As a practical suggestion it may be said that, when a person receives a severe injury of one eye, and he live at a distance from a good eye surgeon, or if he be ignorant, or a child of ignorant parents, it is safe to take out the damaged eye at once, and thus protect the other from any baleful influence. For those better circumstanced or properly observant of themselves, some discretion may be permitted; but they must be stringently warned to present themselves for inspection on the slightest token of trouble.

One other topic remains before I close. It is not uncommon for cataract in old people to be confounded with glaucoma, and *vice versa*. It is true that cataract is the more frequent disease, but it is not fatal to sight as glaucoma. Now, the latter often seems to the naked eye to be just like cataract. The distinction between them can to some degree be made out by any physician, and is to be found by noting that the eye which has glaucoma is hard and resists the pressure of the finger far more than the normal eye, or than a cataractous eye. Again, the field of vision is invaded and partly cut off, especially on the nasal side, by glaucoma, as does not occur in cataract. How shall this be discovered? Examine each eye by itself, having the other shut. Let the patient look at your eye, and, while he fixes his direct gaze upon you, let him note whether he can see the hand held up at his temporal side, and afterward on his nasal side. On the outer side, the hand should be visible to an extent of almost 90 degrees; on the nasal or medial side the limit of the field of view is from 40 to 45 degrees, being bounded by the height of the nose. Now, in glaucoma, while the direct vision suffers more or less, the lateral vision is also very markedly impaired. Especially does this take place on the nasal side, and to this symptom I invite special attention. By very simple experiment it will be found that absolute blindness exists over a space on the nasal side of the field of vision, in which a cataractous patient will be perfectly able to see light and perhaps also objects. The real diagnosis of glaucoma will need the help of the ophthalmoscope, and that is of no use to the untrained and inexperienced observer. Another point is perhaps worthy of note, viz., that while in glaucoma the pupil is very apt to be smoky, this may be thought to be evidence of cataract; whereas a smoky pupil is the natural condition in eyes of old persons.

I can only ask your attention to the possibility of making the false diagnosis alluded to, and leave the topic to your own reflection.

Gentlemen, I may no longer trespass on your patience. Very much more might be said, and I leave to those who follow me, to indicate what I leave untouched. These suggestions are tendered with much distrust, but with a genuine feeling of good-will and desire to aid in our common work of promoting the happiness and abating the misfortunes of our fellow-beings. This cluster of fruit from the small plot which I cultivate, is placed in your hands as the expression of my fellowship with you, in the husbandry of science and humanity, as well as a testimonial of my most sincere regard. Would that the gift were more worthy of your acceptance!

## ON THE RELATION OF SEWER-GAS TO TYPHOID FEVER.

By GEORGE HAMILTON, M.D.,

PHILADELPHIA.

(A paper read before the College of Physicians of Philadelphia.)

The subject of the paper for this evening cannot but be regarded as one of much importance, as well in relation to medicine as in reference to the public at large. As you are all aware, the attention of the community, in general, has for a few years past been drawn in an unusual degree to the subject of sewer-gas as an agent in the production of typhoid fever, and recently it has been declared by several writers to be the most potent and common cause, not only of this fever, but also of scarlet fever, and, in a special degree, of diphtheria. As a consequence of these declarations, a feeling of anxiety and alarm has manifested itself, greatly disproportionate to what an unbiassed and calm consideration of the subject will admit, or an examination of the reports of the Board of Health will justify. That those members of our profession who have endeavored, so earnestly and persistently, to impress upon the mind of the public, as well as of the practitioner, that sewer-gas is the most potent and common cause of typhoid fever in Philadelphia, have acted conscientiously, no one need doubt. To their excellent standing in the profession, and to their zeal in promulgating the views alluded to, is, in great measure, due the success that has attended their efforts in this direction. So successful, in fact, have these efforts proven that probably one-half of the profession in this city, and a still larger proportion of the citizens who may have given some attention to this subject, have been induced to accept the views so urgently pressed as a finality. It is, however, to be remembered that very little in opposition to the opinions stated has been attempted, and it may be that the present will prove a futile effort to stem the actual current of professional and popular feeling upon this subject. Nevertheless, we feel quite assured that a large majority of practitioners who have had, at the bedside of patients, the most frequent and abundant opportunities for the study of typhoid fever, will reject the evidence hitherto offered to prove that sewer-gas is the most potent and common cause of typhoid fever in Philadelphia, or elsewhere, as utterly untenable, and as in direct antagonism with the facts and figures pertaining to that malady.

An observation or two, in reference to the more acute aspect of disease as it occurs in the country, compared with what is seen in city practice, may here be admitted, bearing more or less directly upon the subject before us. The late Dr. Joseph Parrish, eminent in citizenship and as a practitioner, when lecturing, in 1830, before a summer class of students upon bilious remittent fever, narrated his sad experience of this disease, as witnessed in consultation with country physicians within a circuit of about seven miles of the city (sometimes in Pennsylvania, at other times in New Jersey), by declaring that, in frequency in proportion to population, and in violence and fatality, it greatly exceeded anything he had ever met with in Philadelphia. The same remark was made by him in regard to dysentery, and was fully verified by the writer when, a few years later, he began practice thirty miles distant from the city. The accounts received from time to time from country physicians regarding the disastrous epidemics of the diseases mentioned, and, in an especial degree, of diphtheria, are doubtless familiar to you.

Some statements, made by the writer during the discussion that followed the delivery of the paper of Dr. Keating upon the relation of sewer-gas to typhoid fever, must here be repeated, as some who are now present may have then been absent. Centreville, my location in the country for more than ten years, was upon the ridge separating the Brandywine and Red Clay Creeks—distant seven miles from Wilmington, seven from Kennet Square, four from Dupont's, and eleven from West Chester. The surrounding country, rolling or hilly, abounded in nearly every direction with springs of fine water. In this rural section began my first bedside experience in typhoid fever, and the occurrence in my practice of four cases of intestinal perforation, in the space of twelve consecutive months, may but too well attest the character of the prevailing epidemic. It was not, however, until after five years' practice in this vicinity that typhoid fever developed itself; the usual form of fever in earlier years of practice having been bilious remittent, which, like the typhoid, at times assumed an epidemic character, and proved nearly as fatal as typhoid, while in other seasons but few cases occurred, the local conditions remaining essentially the same from year to year.

The change from bilious remittent to typhoid fever was, naturally enough, not abrupt, some of the symptoms of the former gradually giving place to those of the latter. In mode of progression there was a close resemblance between them; either disease showing itself upon an elevated plain, on the brow or slope of a hill, or in the vale below, with perhaps a slight preference for the latter; while the mansion of the opulent farmer would, in turn, be visited with the home of the humble cottager.

Two remarkable instances of typhoid fever, mentioned in the discussion before alluded to, cannot, for the reason then assigned, be passed in silence. One occurred in the residence of a wealthy farmer, the family consisting of eight persons, of whom only one, the mother, escaped an attack. Six were severely affected—three of them dangerously—while the seventh, a colored servant, suffered but slightly. Now, the important point in the history of these cases is revealed in the fact that the disease did not originate npon the premises. A son, about nineteen years of age, had been absent several weeks on business in Maryland, forty miles distant from his father's residence, and from thence was brought home sick, and, apparently from contagion; the others were in turn affected, giving rise to an attendance of nearly four months before the final recovery of the last patient. The second instance happened in a family of seven persons, four or five of whom were attacked, the death of a youth of eighteen years resulting from perforation. Here, again, the disease did not originate on the premises; the mother, the first patient, who had been assisting in nursing a relative several miles distant, was brought back to her own home suffering from typhoid fever, contracted apparently from that relative. The number of persons attacked in both of these examples was exceptionally large, yet the disease rarely appeared in a family, even of moderate size, without more than one of its members being affected.

As to the origin of these widely diffused, destructive epidemics, nothing could be said in explanation, except that, as a rule, a warm, moist spring, and, as a sequence, excessive growth of vegetation, followed by a hot, dry summer, appeared to favor the development of typhoid; just as had been noticed in former seasons in regard to bilious fever. In relation to the influence of local conditions, it may be said that in

an old, long cultivated section, changes in these conditions rarely occur, and certainly nothing of this kind did occur that could explain the ravages of fever in one year, and its absence or slight character the next; and hence the physicians of that section, so far as I knew, were nearly of one accord in regarding atmospheric, hygrometric, electric, or telluric conditions as the sources of the presence or absence, and of the violence or mildness, of the epidemic.

On returning to the city, thirty-three years ago, a location for practice was chosen at Sixteenth and Summer streets, and has thus continued ever since. At that remote period, intermittent, remittent, and typhoid fever prevailed to a considerable extent, especially between Broad Street and the Schuylkill. Not one of these types can now be seen so often, in proportion to population, as during the earlier years of my practice in this locality.

Some years after returning to the city, Professor J. K. Mitchell was called to consult with the late Dr. Gebhard and myself in a severe case of typhoid fever near my residence. This was at a period when bilious remittent was being gradually supplanted by typhoid fever. Dr. Mitchell then stated to us that nearly all the cases of this disease seen by him were in consultations upon the suburbs of the city, as in the case in which he met us, for at that time the locality was but a suburb; yet in the suburbs at that period there were but few sewers or cesspools, and, as to water-closets, they were not to be found there; while, on the contrary, in his own vicinity (Eleventh and Walnut streets) they existed in all directions, and yet, as he informed Dr. Gebhard and myself, he scarcely ever saw typhoid fever in the families under his immediate care. Again, the late Dr. Wm. W. Gerhard, prominent as an authority in typhoid fever, informed me, about six years before his death, that he no longer regarded typhoid fever as either so prevalent or so fatal in this city as it had been in former years; that some modification of the disease, from unknown causes, had occurred, just as he had witnessed many years previously in Paris, where typhoid fever in some of the hospitals had gradually changed in character until from a mortality of one in three patients, only one case out of seventeen attacked terminated fatally. With the statements and opinions thus expressed my own observations and experience fully accord.

During thirty-three years of practice in the city, four cases of typhoid fever, occurring in one family, have come under my care; in two or three families two persons in each have been affected; yet, setting these aside, one case only in any family coming under my observation has occurred. This is in striking and most favorable contrast with what, as before stated, often happens in epidemic typhoid in the country, where no sewer gas or obstructed drains are to be found in explanation of this difference. The increase in the number of sewers, water-closets, and cesspools, in Philadelphia, for some years past, has been simply enormous; and consequently the opportunities for contamination of the atmosphere, water, or milk, correspondingly augmented. If (as some have asserted) sewer-gas is the most potent and common cause in the production of typhoid fever, and if so large a proportion of the houses in the city are infected by it, would we not have, in a population of nearly nine hundred thousand inhabitants, cases almost without number, and deaths in proportion, far more than quadruple the average number reported by the Board of Health?

Physicians have long differed in opinion in reference to the conditions under which typhoid fever is likely to occur, and in regard to the influence exerted by the various agents known, or believed, to play a part in the production of this disease. While many, at the present moment, are disposed to accept the opinion that in an atmosphere contaminated by sewer-gas, or effluvia arising from cesspools, or decaying animal or vegetable matter, is to be found the ostensible cause of the disease; others are more disposed to refer it to the use of milk or water infected by the agents just named, and, in addition, to the consumption of food partially decayed. On the other hand, there are those who, whilst admitting the possibility or probability that certain limited outbreaks of typhoid may be referred to the local causes just named, are fully convinced that the widely spread and fatal epidemics witnessed at times in the country can be explained by no such agencies as those alluded to; neither do we think that a practitioner, who has had the experience of a single season of epidemic typhoid fever in the country, can refer to these agents as the cause of such epidemic, without rejecting the evidence of his own senses.

Dr. James Jackson, of Boston, long before Pettenkofer, in explanation of certain erratic and very restricted outbreaks of typhoid fever, ventured to suggest that, in the absence of any visible agency, some emanation from the soil, obscure as to origin, might account for them. Pettenkofer, however, determined that in proportion to the elevation or depression of the water level in the earth was the greater or less prevalence of typhoid fever, without fixing any limit as to the extent of its influence. When we call to mind that, as before stated, a hot dry summer is, as a rule, the precursor of an unusual amount of fever, either remittent or typhoid, the view of Pettenkofer demands attention and earnest consideration; for, after laborious and protracted researches, he announces, definitely, that in proportion as the water level becomes lower, typhoid fever increases. That many epidemics of the fever appear without the possibility of assigning any special cause in explanation of their origin, is manifest, and no one is more prepared to admit this than the practitioner and medical writer of large experience. Whatever may be the cause or causes of the fever, when once established, contagion, especially when aided by the concurrence of certain indefinable, elemental, and local influences, lends its all-powerful aid in its extension; this, at least, is the opinion of Bretonneau, Trousseau, Louis, Gendron, Chomel, and many other investigators of the disease in France, England, and the United States; among the latter, Drs. Nathan Smith, James Jackson, Elisha Bartlett, and Austin Flint, Sr.

Of the writers quoted, nearly all recognize that very frequently the disease arises spontaneously, and, while some of them admit that a limited number of cases may be due to emanations from sewers or cesspools, others, regarding typhoid fever as specific in character, claim that a specific cause is necessary to develop the disease; and that they find no sufficient evidence of such cause either in the respiration of the effluvia alluded to, or in the consumption of unwholesome food. Trousseau, the medical genius of France, declares "that in Paris, or other large centres of population, it is impossible to determine the origin of the malady, and that this can only be done by physicians who practise in limited spheres, when it can generally be ascertained where the first attack of the disease was noticed." Than this, nothing could be more certain in relation to contagious disease in general; for in the street-car may be seated by your side the washerwoman, whose bundle upon her lap

may contain the clothing of a patient affected with a malignant disease.

When, from time to time, on meeting with physicians of this city who have formerly practised in the country, the inquiry has been made as to the origin of typhoid fever, the answer has been, without exception, that only in an occasional case could even a hypothetical local cause be assigned. The late Dr. Gallagher, of West Philadelphia, once informed me that, from 1839 to 1842, he was nearly broken down in attending to cases of typhoid fever occurring in the fine rural sections four or five miles west of this city. If typhoid is a specific fever, and has as a definite, specific cause, sewer-gas, what can be said in explanation of its great prevalence and fatality at the distance of a few miles only from the city, where no sewer-gas exists? All writers and practitioners, however, do not accept *in toto*, perhaps not at all, the sewer-gas theory, but on the contrary refer to the emanations from decomposed vegetable and animal substances, and from cesspools, as frequent sources of the disease; in addition to which, a third class of observers insist that food, liquid or solid, contaminated by these agents, must be taken into account before a solution of the grand problem, the causation of typhoid fever, can be accomplished. But these various hypothetical or assumed causes have been for years under serious and earnest consideration, yet, so far from solving the difficulty, we are in many respects little farther advanced than when Montaigne, three centuries ago, in his amusingly furious tirade against doctors and their prescriptions, said, quoting the language of Pliny: "That the most important science in use with us, that which has our preservation and our health in charge, is unfortunately the most uncertain, confused, and disturbed by the most frequent changes;" and then, giving utterance to his own thoughts, he exclaimed: "There is no great danger of our being mistaken as to the altitude of the sun, or in the fraction of an astronomical calculation, but here, where it concerns our very existence, it is not wisdom to expose ourselves to the mercy of so many contrary and agitated winds."*

Attempts have often been made to explain away the difficulty of accounting for the extraordinary prevalence and fatality of typhoid fever in the country, as compared with the city, by alleging that the water is, probably, contaminated by the well being too near to where is located the family necessary, or otherwise that the drainage is from the latter to the former. Again, it is said that the effluvia, arising from decayed vegetable matter stowed away in vaults or cellars, are a fruitful source of the disease. That such a condition of things may obtain among families in some of the manufacturing towns of England, or other places in Europe, or in certain localities of this country, may be granted; but that it characterizes any considerable portion of the rural sections that have come under my own notice cannot, in truth, be admitted; and certainly the charge of negligence and improvidence, implied in the above allegation, can have no application to the circle of my former practice in the country, nor to the region adjacent.

A most significant reference must here have place. At the distance of three miles from my location was situated, upon the Brandywine, the cotton factory of Mr. Wm. Young, employing a large number of hands, of whom probably at least one-half were under my care; and yet, so far as memory serves, only two cases of typhoid fever there ever came under my charge. At the distance of about a mile below are located the immense establishments of the Messrs. Dupont, where thousands of people live in comparative proximity. As my practice did not extend to these works, a note was sent a few weeks ago to Mr. Henry Dupont, asking whether or not typhoid fever prevailed among his employés during the years 1840–1843. The note of Mr. Dupont in reply states that, while of so distant a period his recollection is not clear, his impression is that there were but few cases of typhoid fever at that time among the people, and that they are generally healthy. A note recently received from Dr. Jos. P. Chandler, of Centreville, who has had an extraordinary opportunity of investigating the disease, confirms the impression of Mr. Dupont, as he is well qualified to do from the large practice he has had at the works.

Dr. Chandler also informs me that, with the exception of a few cases of the fever, where it seemed probable that local causes may have given rise to the disease, the rule has held good that its origin is involved in obscurity. This statement is fully justified in the fact that the manufacturing centres, with their closely situated houses, do not suffer, as his letter informs me, in comparison with the rural sections, where the disease will often appear in the best and most favorably situated dwellings, with nothing within or without to explain the cause. Now when we call to mind that, in some seasons, typhoid fever has prevailed extensively on the north and south side of the Brandywine, while the intermediate banks, with their dense population, have suffered but little, is it not worth while to concede, at least, to such a statement, so full of truth and meaning, that measure of thoughtful consideration which its importance merits, and in fact demands? At the present moment, and during the last two or three months, Wilmington has suffered from an unusual amount of typhoid, yet the banks of the Brandywine have had but few cases; and whilst the proverbial generosity of the Messrs. Dupont never flags, when the safety, the health, or the general welfare of their employés is in question, the fact is nevertheless obvious, that the local conditions must, of necessity, be in several points such as in the opinion of many physicians would surely engender an epidemic of typhoid fever, which yet for a long series of years has not occurred.

In the earlier part of this paper it was stated that the reports of the Board of Health of this city did not warrant the anxiety and alarm that exist in relation to sewer-gas, as the chief agent in the production of typhoid fever; and without going into details, a few points only will be adduced in reference to this matter. The reports show that very often the deaths from this disease are more numerous in the winter months than during the hot weather of the summer. For example, in January, February, and December, of 1878, the deaths in the order named, were 34, 32, and 33, whilst in July the deaths were but 23; yet this month, as shown by the record of the last ten years, is the hottest of the year, and consequently is the period when fermentation, decomposition, and putrefaction are most actively engaged in evolving effluvia from animal or vegetable substances. This record of facts and figures may, by some, be regarded as inconceivable and perplexing, yet it finds its counterpart in the country, where during one entire winter the disease was unu-

* "'Que la science la plus importante qui soit en nostre usage, comme celle qui a charge de nostre conservation et santé, c'est, de malheur, la plus incertaine, la plus trouble, et agitée de plus de changements.' Il n'y a pas grand dangier de nous mescompter à la hauteur du soleil, ou en la fraction de quelque supputation astronomique: mais ici, où il y va de tout nostre estre, ce n'est pas sagesse de nous abandonner à la mercy de l'agitation de tant de vents contraires."—*Montaigne*, Essais, Liv. 2, chap. 37, Paris, 1834.

sually prevalent and fatal. Incidentally, it may here be stated that Dr. L. P. Bush, of Wilmington, during that winter, made, at my request, the examination of the body of a young man who died, apparently from perforation, and this was verified by his careful *post-mortem* search. To Dr. Bush, in fact, was I first indebted for the intimation that Dr. J. P. Chandler and myself were probably having to do not any longer with remittent, but with typhoid fever, for his attention had, if I remember, been especially drawn to this change of type by Dr. Wm. W. Gerhard, and the work of Dr. Elisha Bartlett.

Quoting again, after this digression, from the Health Office Reports, we find that in a series of years the weekly deaths from typhoid average but six or eight in a population of nearly nine hundred thousand; and it should be remembered that this includes the deaths in the almshouses, prison, penitentiary, hospitals, house of correction, and all other similar establishments, making at least one-fifth to be deducted from the total reported.

It is only a few weeks ago that, of our vast population, only two deaths from typhoid were reported for the week. When we reflect upon the number of inlets constantly evolving gas, at times very offensive; the thousands of residences, factories, etc., infected with it; the throngs of plumbers and gas-fitters who are daily compelled by their vocation to inhale the gas in no diluted form; is there not cause of rejoicing, rather than of the alarm that prompts to invert a tumbler over a small aperture, or fill a slight crevice in the washstand, with paper or cotton? Quite recently there appeared in the daily papers an account of an excursion through one of the immense sewers of Paris, where the odor is said to be so offensive that it can never be forgotten. Is it not strange that this should be permitted if sewer-gas was there regarded as the chief and common cause of typhoid fever? But sewer-gas is also said by many to be the general cause of diphtheria and scarlet fever. By reference to the New York Board of Health Report, for the week ending January 11, 1879, it appears that 274 cases of scarlet fever, and 65 of diphtheria, were returned, and only 8 of typhoid fever; nevertheless, the logical inference deducible from this statement will probably be contested. The deaths from scarlet fever, for the month ending December 28, 1878, were, by the same report, 228, from diphtheria 101, from typhoid fever 24, showing a fair correspondence with the number of cases returned.

My own experience, and that of most physicians who have had much experience in typhoid fever, shows a larger number of cases and deaths among males than females; yet the latter, more domestic in town or country than the former, are far more exposed to the influence of what are now regarded by many as the almost exclusive agents in the production of the disease. Practitioners and writers are generally in accord that the disease is most common between the ages of fifteen and thirty-five years; it will be found, however, that a very large proportion are between seventeen and twenty-one years, the most fatal, too, of all periods, especially when the patient is large and has grown up rapidly; and it is just at this time that young men are prone to out-door life, even when business does not call.

The readiness of some physicians to attribute to sewer-gas an attack of typhoid, if any smell denoting its presence in a house can be detected, is surprising, when every physician knows that this is only an exceptional event. To get over this difficulty it is now declared in some quarters that, although the smell be lacking, the gas is present, and capable of producing an attack. This is an unfortunate discovery, if it be a discovery; for it would follow from this, that, after much expense in the effort to banish gas where it was known to exist, from the sense of smell, it might still remain, although imperceptible, and keep the family in painful suspense. But have we any tangible and conclusive proof of this lurking, unforeseen danger, and, if it really exist, is it not remarkable that in the thousands of houses, where the odor is annoyingly perceptible, it appears to do so little mischief? Yet after all there is consolation and hope for the people; for it is announced that typhoid fever, and, as may be supposed, with it diphtheria and scarlet fever, can be stamped out. The whole system of existing sewerage is now discovered to be radically wrong, and it is declared that it ought to be torn out, root and branch. In this announcement the dishonest contractor would surely have the largest share of hope and consolation, were it not that a lynx-eyed, intelligent, and fearless Reform Association confronted him. To this association, in fact, are due the thanks of the community for having unearthed the nefarious acts of more than one contractor, and exposed to the light of day the wretched workmanship and worse material, that they fully believed had been forever concealed from human vision. Let the actual system, then, have justice done it, in material and construction, before entering upon the trial of another, involving the expenditure of untold millions still further to oppress the renter and tax-payer.

But what is to become of the rural population who, without sewer-gas, suffer more from epidemic typhoid fever than the residents of cities? Let them, we shall be told, be more careful in regard to local filth, contaminating both air and water or food. This advice appears to be tendered in all sincerity and charity; but whether the people of any well-ordered farming district in the counties adjacent to the city, where the Quaker element, proverbial for neatness and order, so largely prevails, will receive, with due humility and gratitude, the advice so generously proffered, remains to be seen. Admitting, however, that the charge is in some instances well founded, or indeed that every farm-house in the largest county adjacent to Philadelphia has, within or without, the sources of infection, what would it all amount to, diffused over so large an area, when compared to the limited space on which the city is built, with its sewers, water-closets and cesspools, aggregating, in number, tens of thousands, and many of the latter, too, in close proximity to the dwelling, in an offensive condition, and rendered more so by serving as receptacles for every description of putrefied and putrefactive substance. And, again, has the butcher never any unsalable, perhaps semi-putrefied, meat on hand; has the greengrocer no decayed vegetables or fruits to dispose of; and have the hucksters nothing of a semi-putrid character to stow away, in barrels or boxes, in cellars or vaults, or to have covered up from sight in a filthy stable-yard or outhouse?

The sources, then, of local contamination would seem to be infinitely more numerous in the city than in the country, yet without discouraging those who promise to stamp out disease. The real difficulty is when an epidemic of a violent and extended character starts up, as it has been known to do, in certain mountainous parts of Virginia and Tennessee, in their almost pristine condition, without the semblance of filth to account for its origin. It is evident then, that whatever cases of typhoid fever may have been traced to sewer-gas, or local contaminations, some other

cause or causes must be sought to account for the frequent and disastrous outbreaks in the rural sections; and this, it is clear, was in the mind of that sagacious observer and logical thinker, Dr. Charles Murchison, when he declared his belief in the origin *de novo* of typhoid fever, placing himself, in this point, upon the platform occupied by all the celebrities named in the earlier part of this paper.

Directing our attention once more to the health of our city, as exhibited by the Board of Health from week to week, we see no rational cause for anxiety or alarm; for while the deaths from pneumonia, for the last five weeks, have been very numerous, exceeding by far the total number caused by typhoid fever, diphtheria and scarlatina, taken together, the city, as to general health, may still be, as it has been for many long years, regarded as one of the most healthy of large cities. In the present Board of Health the people, we believe, may have entire confidence, composed as it is of gentlemen of exalted character, and fully interested in the important and responsible work they have in charge; presided over, too, by a gentleman whose fitness for the post he occupies is acknowledged by every one who has examined the recent annual reports, in the preparation of which he is doubtless aided by the indefatigable Registrar. That nothing will be left undone by the Board for the prevention of disease, so far as that is possible, and for the removal of nuisances, even if not productive of disease, we have full confidence. The circulation of exaggerated reports, in relation to any disease, should be avoided, as the tendency is to engender a degree of anxiety and disquietude, whose only effect is to diminish vital force, and thereby render the system more liable to the influence of a deleterious agent.

## TREATMENT OF PERITYPHLITIC ABSCESS BY ASPIRATION.

By H. C. POTTER, M.D.,

PRAIRIE CITY, IOWA.

I was called on the 3d of September last to see J. J. Draper, a robust man of thirty-four years. He said he had been taken sick three days before with vomiting and pain in the stomach; but that the pain had shifted to the right side of the abdomen on the morning of the 3d.

I found him suffering severe pain in the ileo-cæcal region. Inspection revealed nothing abnormal. Palpation, however, disclosed a small tumor at this point, deep-seated, and painful on pressure. His temperature was raised considerably above the normal (101.5° F.); pulse 95.

During the following twelve days, while the pulse and temperature remained about the same, a gradual increase in size of the tumor took place, with elevation of the surface. At the end of this time an oval elevation occupied the ileo-cæcal region, its apex rising perhaps ¼ of an inch above the general surface. At its most prominent point slight fluctuation could be felt on rather firm pressure. On the 13th, fluctuation in tumor more marked, and I resolved to operate for its evacuation.

Accordingly on the 14th I called Dr. C. H. Rawson, of Des Moines, in council. After examination we decided to make an exploration with aspirator. The reservoir being exhausted, the needle was inserted at the apex of the tumor, and at the depth of 1¼ inches was felt to pass into the cavity of the abscess. The stop-cock was now turned, and about two ounces of fetid pus flowed over into the reservoir. The needle was then withdrawn.

In consequence of the apparently complete evacuation effected by the aspirator, we concluded not to operate further, unless subsequent developments should render it necessary. On the following day the condition of patient was greatly improved, and from this time he advanced to convalescence as rapidly as could be expected.

He is now able to perform his usual duties.

The treatment during the course of the disease consisted of opiates and tonics to arrest the symptoms. In conclusion, would note the fact that patient submitted to the operation without the exhibition of an anæsthetic, and that he expressed himself as very much relieved immediately on evacuation of abscess.

## ACNE ROSACEA—THIRD DEGREE.

GREAT THICKENING OF THE SKIN OF THE NOSE, WITH DEVELOPMENT OF FLESHY EXCRESCENCES —TREATED BY EXCISION.

By P. A. JEWETT, M.D.,

NEW HAVEN, CONN.

S. C——, aged 70 years, was the subject of this disease for more than thirty years. It had gradually extended until more than half of the organ had become implicated. The diseased mass exceeded in size that of a large orange, and projected most on the right side, causing the patient to present a somewhat unique appearance.

The operation consisted in the removal of the whole diseased mass, by careful dissection down to the cartilage.

The hemorrhage was not troublesome, being readily controlled by the use of solut. persulph. ferri.

The after-treatment consisted in the application of a solution of permanganate of potass., grains v. to ℥ i. of water, at first. This was gradually increased in strength to gr. x. to ℥ i. as the growth of the granulations seemed to require. The wound was entirely healed at the end of two weeks, without scar, roughness, or contraction.

In the Medical Record of August 3, 1878, Prof. Hebra, of Vienna, is reported as having performed a similar operation on two patients. He says, that "in each case he succeeded in forming a very presentable nose, to the great delight of the patient and his own satisfaction." The nose in my case is not only "very presentable," but is as good as the original organ. The patient is very proud of his improved appearance.

New Haven, Conn., February 3, 1879.

The Plaster Jacket.—Dr. R. E. Power sends to the *British Medical Journal* of March 15th some suggestions in regard to the plaster jacket in spinal curvature. To the ordinary mode of application he had found two inconveniences: the friability of the plaster and the tendency of the jacket to become slack. To obviate the first, he moistens the plaster with a thin solution of gelatine. For preventing the loosening of the jacket he uses coarse brown paper instead of the woven shirt. This is immersed in warm water for a few minutes, and then applied to the chest. The plaster is rubbed upon this; then another layer of paper superimposed, and the whole then suitably bandaged. When this jacket dries it does not shrink, and is moreover somewhat elastic.

# Progress of Medical Science.

On the "Phenomenon of the Knee," and on Tendon-Reflexes in Children.—The researches of Tscherjerv tend to demonstrate that the sharp contraction of the triceps cruralis, excited by percussion of the ligament of the patella, and known by the name of *phenomenon of the knee*, is not the result of direct irritation of the muscle, but is reflex in character. The centre which presides over the reflex phenomenon, is situated in the rabbit in that portion of the spinal cord which corresponds to the junction of the fifth and sixth lumbar vertebræ, and to the point of origin of the sixth lumbar nerves. When the cord is divided at this level along with the posterior root of the sixth lumbar nerve on one side, the phenomenon of the knee can no longer be produced on that side. It follows that the abolition of the phenomenon of the knee indicates the existence of a very circumscribed lesion at the above point. In ataxics it indicates that the degeneration of the posterior columns has reached that point. On the other hand the persistence of the phenomenon does not exclude the possibility of an alteration in other regions of the cord. The exaggeration of the tendon reflexes in spasmodic spinal paralysis should be ascribed in part to the paralysis of the antagonists.

Prof. Eulenburg has studied the subject of tendon reflexes during the first years of life with the following results: Out of seven children who were examined during the first twenty-four hours after birth, the phenomenon of the knee was very distinct in six, while, on the contrary, the phenomenon of the foot could only be obtained in one. In one boy, thirteen days old, who was suffering from atrophy, the phenomenon of the knee was wanting, but it was present in all the other children between one and four weeks of age who were examined. As a rule it was more marked on one side. It was wanting only in 7 out of 173 infants over one month old; in all of these seven the state of the nutrition was poor and the general health was more or less impaired. On the other hand, in two children suffering from spinal paralysis, the phenomenon of the knee was considerably exaggerated. In children from two to ten years of age, its absence was as exceptional as in the earlier periods of life. It was wanting in a child who was epileptic, as a result of a fall on the head; on the other hand, it was exaggerated in chronic and eclamptic children. It is an interesting fact that, in a case in which Prof. Hueter had resected the crural nerve for obstinate neuralgia, percussion of the patellar ligament was invariably followed by an energetic contraction of the flexor muscles of the leg.

The investigations of Soltmann have proved that the reflex acts are exaggerated, while the excitability of the peripheral nerves is less intense during the first six weeks of life. Hence, since the phenomenon of the knee is observed immediately after birth, it must be admitted that it is a reflex act, and that the contraction of the triceps cruralis which constitutes it, is not the result of direct irritation of the muscles and the motor nerves ramifying in them.—*Gazette Médicale de Paris*, Oct. 5th.

A Case of Total Extirpation of the Uterus.—Dr. G. Leopold, of Leipsic, reports a case in which he performed the operation of total extirpation of the uterus, on Freund's plan. The patient was suffering from cancer of the uterus, and the vaginal walls were not involved in the disease. The operation was performed under the carbolic spray and lasted two and a half hours. In the course of the operation considerable venous hemorrhage took place from the rich venous plexus of one side, which was torn in the application of the lowermost ligature in consequence of the needle pushing the parametrium before it. This was avoided on the other side by making counter-pressure against the point of the needle. Dr. Leopold, from his experience in this case, believes that the venous is more to be feared than the arterial hemorrhage. He recommends that the uterus be not drawn upward too forcibly while applying this ligature, as forcible traction obliterates the vaginal vault, and the needle is then liable to pierce the infiltrated cervix. The peritoneal sutures had to be applied with more haste than was desirable in this case, as the patient had collapsed several times during the operation, chiefly from loss of blood. She came out of the narcosis well, but began to complain of violent pains in the vagina on the same afternoon, and died on the second day from loss of blood and septic peritonitis. At the autopsy the posterior wall of the bladder was found to be the seat of a commencing carcinomatous infiltration. The ovaries were enlarged to threefold their size at the time of the operation, as a result of the congestion caused by the ligatures. They contained numerous extravasations of blood, and the wall of a corpus luteum, that was present in one of them, had been ruptured, permitting the escape of blood into the pelvic cavity. The operation had been performed nine days after a menstrual period.—*Centralblatt f. Gynäkologie*, Nov. 9th.

Tracheotomy in Infants Under One Year of Age.—As the reported cases of successful tracheotomy performed during the first year of life are but few in number, the two following cases reported by Dr. Elias, of Breslau, are of unusual interest. The first case was that of a delicate girl, ten months old, who was suffering from a severe form of diphtheria. The tonsils, uvula, and posterior wall of the pharynx were covered with a thick membrane. There was marked fœtor ex ore, and suffocation was imminent. The improvement after the operation was slow, but on the sixteenth day the canula was permanently removed, and on the twenty-first day the tracheal opening had closed, the voice was pretty clear, and the general condition was excellent. On the following day, however, the child was suddenly seized with violent convulsions, in one of which she died on the same evening. The autopsy showed that the tracheal wound was firmly closed and revealed no abnormity in the respiratory organs or the intestines. From this negative result Dr. Elias concludes that the fatal convulsions had no direct connection with the diphtheria, but that they were probably due to dentition, and favored by the anæmia resulting from the severe sickness the child had just passed through.

The second patient was eight months of age, and was suffering from membranous croup. Tracheotomy was performed on the second day of the disease, with immediate relief to the threatening symptoms. The tube was removed permanently on the thirty-third day, and a few days later the wound in the neck was entirely healed. From his experience in these two cases, Dr. Elias warmly advocates an early operation in children under one year of age, when the signs of suffocation are threatening. He recommends the employment of canulæ of, at most, from 3–3.3 cm. in length, and 4 mm. in thickness, with a curve of from 1.7–2 cm. radius. The outer canula should have an oval fenes-

trum. Longer canulæ irritate unnecessarily the mucous membrane of the trachea. As early as possible the patient should be made to breathe through the larynx; this can be done by removing the inner canula and stopping the external opening of the outer canula with the finger. This manœuvre should be kept up each time until dyspnœa sets in. In this way the children will soon become accustomed to breathe through the mouth, and both canulæ can then be definitely removed without danger.—*Deutsche med. Wochen.*, Nov. 9, 1878.

A Case of Reflex Vertigo from Stricture of the Urethra.—Dr. Erlenmeyer, of Coblentz, reports the following case: A robust, previously healthy man began to suffer from stiffness and a sense of weight in the left arm, which soon spread to the left leg and then to the right arm. This stiffness was only present at intervals, and was finally associated with severe subjective vertigo. The vertigo occurred also independently of the stiffness of the joints, during micturition, which was rendered difficult by a urethral stricture. In consequence of his suffering, the patient became melancholic and incapable of mental exertion. The objective examination revealed catarrh of the stomach and bladder, and increased reflex of the patellar tendons. The patient staggered and complained of vertigo, when he tried to stand or walk with closed eyes. Although the case was very obscure, incipient disease of the central nervous system was diagnosticated, and the patient was treated on that supposition, but entirely without result. He finally submitted to treatment for his urethral stricture, and as soon as this was cured the stiffness of the joints and the attacks of vertigo disappeared. The staggering and subjective vertigo, when standing or walking with closed eyes, and the increased reflexes of the patellar tendons, alone persisted.—*Deutsche Med. Wochen.*, Nov. 9, 1878.

Carbolic Acid Poisoning.—Dr. Sonnenburg, of Strassbourg, in a paper published in Vol. IX. of the *Deutsche Zeitschrift für Chir.*, recommended, on experimental grounds, the sulphate of soda as an antidote for carbolic intoxication, and he now states that his subsequent experience has fully confirmed the views expressed in that paper. In all the suspicious cases under his observation, the urine was examined, and whenever the diminution of the sulphates showed that the carbolic acid was beginning to act injuriously, the sulphate of soda was administered; within twenty-four hours, as a rule, the urine threw down a normal precipitate on the addition of chloride of barium, and the suspicious symptoms disappeared.

In the last "Surgical Congress," Prof. Lücke drew attention to the facts that traces of albumen are sometimes found in the urine of patients with open wounds which are dressed with carbolic acid, and that the albumen disappears as recovery progresses, and the dressings are less frequently changed. As the conditions of this albuminuria from carbolic acid are still very slightly known, Dr. Sonnenburg undertook a series of experiments on dogs and rabbits, in which he studied particularly the action of carbolic acid on the kidneys. Strong solutions of the acid were rubbed into extensive portions of the skin of the animal with a stiff brush. Sometimes two or three applications were required, but in a few cases the animals died a few hours after the first application. The results obtained were as follows: After every moderately thorough application of the acid, the sulphates disappeared entirely from the urine. Traces of albumen were only found in the urine of two cases, which proved very rapidly fatal. The kidneys in all the animals experimented on were markedly hyperæmic. In one case, in which death took place after violent convulsions, about six hours after an extensive application of the acid, the hyperæmia of the kidneys was unusually great; this case presented also hemorrhages into the cortical substance, and hemorrhagic casts in the convoluted, but more particularly in the straight tubes. The urine found in the bladder at the autopsy also showed traces of blood. From these investigations, it is clear that carbolic acid can be absorbed by the skin, and produce very serious derangements in the kidneys. It is true that such acute poisoning, as occurred in the above case, in which hemorrhages into the renal substance were found, could scarcely occur in men from absorption of carbolic acid through a wound. Still the power of carbolic acid to excite hyperæmia, etc., in the kidneys, may become of serious import in cases in which the nutrition and circulation of those organs are impaired by long-standing suppuration; it may then explain the occasional occurrence of albuminuria without any other notable symptoms of poisoning during the treatment of wounds with carbolic acid.—*Centralblatt für Chir.*, No. 45, 1878.

Changes in the Sympathetic in a Case of Progressive Pernicious Anæmia.—Dr. Brigidi reports a case of progressive pernicious anæmia in which the autopsy revealed interesting changes in the cœliac plexus, but no fatty change or other lesion in the heart and other viscera. In the fresh state the plexus presented an excessive proliferation of nuclei, so that in many places the nerve-cells were destroyed; in other places these cells seemed pigmented, but were cleared up by the addition of reagents. The blood-vessels were empty. In ganglia, hardened in alcohol, the nerve-cells could only be found in isolated spots; in the greater part of the sections they were replaced by groups of small elements, which resembled nucleoli. From the microscopical appearances, Dr. Brigidi constructs the following chart of the pathological process: The endothelium lining the capsules of the ganglia began to proliferate abnormally, destroyed the nerve-cells by pressure, and formed granulations, some of which assumed a bronzed or brown color, while others underwent fatty degeneration. The further this fat development proceeded, the more the nerve-substance disappeared, until finally, the proliferation of nuclei persisting, the entire nerve-substance was destroyed, and its débris was found dispersed in the newly-formed nuclear growth. The nerve fibres of the ganglia had likewise undergone fatty degeneration. The empty blood-vessels of the ganglia also presented an excessive proliferation and accumulation of the endothelium. Around the ganglia there were thick layers of connective tissue, which was but poorly supplied with nerves.—*Allg. med. Cent.-Zeit.*, No. 98, 1878.

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Death from an Intra-Uterine Injection.—At the meeting of the London Obstetrical Society, March 5th, a uterus was shown of a very interesting character. The patient had expelled a vesicular mole six months before. She then suffered from menorrhagia, and was admitted to St. Thomas's Hospital. The hemorrhage continuing, a solution of perchloride of iron was injected. The second syringeful was sent into the uterus. The patient died, and on examination iron was detected in the peritoneal cavity.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, April 19, 1879.


## TENDON-REFLEX.

THE ankle or foot-clonus (foot-phenomenon of Westphal), produced by irritation of the tendo Achillis, is in many respects similar to the "knee-phenomenon" which we discussed in the preceding number of the RECORD, and is, in fact, considered identical with it by the majority of neuro-pathologists.

This phenomenon is produced in the following manner: If the foot be abruptly forced into complete flexion by one hand applied to the sole, and the tendo Achillis, which has been necessarily rendered tense by this manœuvre, be smartly tapped with the finger or other small object, such as a percussion hammer, the foot will immediately begin to undergo alternate movements of flexion and extension, due to alternate contraction and relaxation of the anterior tibial and calf muscles. These movements will continue as long as firm pressure is maintained by the hand which is applied to the sole of the foot, or until the muscles of the leg have become exhausted. When the phenomenon is well marked it may also be produced by mere forcible flexion of the foot without resorting to the additional stimulation of the tendo Achillis, and, in extreme cases, the mere weight of the bed-clothes resting upon the tips of the toes may cause violent movements in the limb. The initial contraction can also be frequently developed by tapping the anterior tibial muscles, and this is a very significant fact, since this procedure can have very little effect upon the tension of the tendon.

After careful investigation of a large number of cases, Dr. Gowers found that from five to seven contractions occur per second, the average number being 6.1.

Many of the French neurologists, and notably Joffroy, have maintained the opinion that the ankle-clonus is a simple cutaneous reflex, similar to the spinal epilepsy which was first described by Brown-Séquard nearly thirty years ago. According to Erb, many of the cases of so-called spinal epilepsy are due to the fact that when the sole of the foot is irritated by tickling or pinching, the foot is immediately drawn up into active dorsal flexion, the tendo Achillis is thereby rendered more tense, and the tremulous movements produced in the leg and thigh (and which are sometimes communicated to the other limb) are, therefore, similar to those observed in foot-clonus. In addition, it has been shown that foot-clonus may be produced, even if the cutaneous sensibility of the lower limbs is lost, and, on the other hand, the reflex excitability from stimulation of the skin may be increased, though the foot-clonus may, nevertheless, be wanting.

As in the tendon-reflexes to which we referred in the preceding article on this subject, foot-clonus is indirectly due to the increased tension produced in the calf-muscles by the increase of the tension of the tendo Achillis. The simple fact that, as we have previously mentioned, a tap on the anterior tibial group of muscles will, in certain cases, produce ankle-clonus, if the foot be simultaneously held in dorsal-flexion, although tapping the tibia itself is not followed by a similar phenomenon, is sufficient evidence that mere tension of the tendon, without implication of the muscles, is not the essential cause of the development of ankle-clonus.

It would appear, therefore, that ankle-clonus is, in most respects, identical with the patellar reflex or "knee-phenomenon." Gowers has shown, however, that the two sets of phenomena differ in certain fundamental characteristics. The measurements of this author, by means of the myograph, have demonstrated conclusively that the interval which elapses between tapping the tendo Achillis and the appearance of the first contraction in the muscles of the calf varies from .025—.04 of a second. This period is entirely insufficient for the production of a reflex act, the time required for the development of the latter varying from .10–.11 of a second (nearly three times as long as the former period).

Ankle-clonus must therefore be regarded as the effect of direct stimulation of the muscles (anterior tibial or calf groups), which are in a condition of exaggerated irritability.

According to Gowers, however, this exaggerated irritability of the muscles may itself be a reflex effect of the tension produced in the fibres by the passive flexion of the foot. This opinion is substantiated, to a certain extent, by the fact that the phenomenon is not produced immediately after flexion of the foot, but that a sufficient period elapses (as shown by the tracings of the myograph) for the development of a spinal reflex.

Dr. Gowers calls attention to a very interesting physiological application of this view. During the act of walking the contraction of the calf muscles (raising the heel) always follows the increased tension

which has been called forth in these muscles by the contraction of the anterior tibial group of muscles (raising the toes), and Gowers believes that a physiological reflex between these two sets of phenomena is probably developed in early life when the child is beginning to walk.

Ankle-clonus is frequently observed in health, but not with the same regularity as the patellar reflex.

The chief clinical interest hitherto attached to ankle-clonus, refers to its occurrence in lateral sclerosis, in which disease it is developed to an excessive degree.

Unfortunately, however, the patellar-reflex has hitherto usurped the greatest amount of attention among the so-called tendon-reflexes (ankle-clonus having been regarded as identical with it), and, as a natural consequence, while we have made some advances with regard to the physiology of ankle-clonus, its clinical bearings have been almost entirely disregarded.

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### THE REPORT ON THE STATE CHARITIES.

THE recent report to the Comptroller upon our State Charities has deservedly attracted much attention and is likely to invite a long discussion. It bears especially upon the financial management of the various State institutions, and that part which relates to Insane Asylums, therefore, will be a fitting complement to the proposed investigation into the medical side of the question. The present report is one step at least in the right direction.

Mr. Apgar, its author, has evidently done his work with care and honesty. He gives, perhaps naturally, a rather *ex parte* statement of the case, and one would judge that he had never had any great experience previously with the institutions examined. Nevertheless his main conclusions are so well supported with statistics that they cannot be disproved.

He shows what we have before maintained, that there is much unnecessary and injudicious expenditure in the management of Insane Asylums, and he refers to one of the causes upon which we have especially insisted, namely, that of constructing large asylums, and then weighting one person with both the medical and business management. There can be no stronger illustration of the grotesque character of the present palace-asylum system than that furnished in Dutchess County. The per capita cost of private dwellings there is $386, while that of the insane asylum is nearly nine times as much. In other words, the average tax-payer lives in the modest accommodations of a cottage, while the lunatic vegetates amidst the architectural splendors of a building that cost a million and a half dollars.

Mr. Apgar endeavors to show, amongst other things, that while the expense per capita in insane asylums has increased, the per cent. of cures has actually diminished, and that thus our fine buildings, our advanced therapeutical methods, and our special pathological investigations have been of no practical value. We are inclined to distrust the figures which lead to this conclusion. In determining changes in the per cent. of cures there are many elements to be considered, and we must have evidence that these have not been overlooked before believing that there has been no advance in the therapeutics of insanity during the last twenty years. However, there is certainly an apparent decrease in the number of patients cured, and this fact is held up to show that a lunatic has as good a chance of recovery on $3.71 a week, the cost of support at Northampton, Mass., as on $5.00, the cost at Utica, N. Y.

The report suggests that the carelessness and extravagance shown can be remedied by obliging itemized estimates to be submitted regularly to the State Board of Charities, who will examine into their character before submitting them to the Comptroller. Without going into detail, the plan suggested appears to be simple and sufficient.

The report, then, in brief, shows that there is extravagant expenditure without a corresponding increase in efficiency, and plans for securing more rigid economy are strongly recommended as both practicable and necessary. We hope that such may be initiated, but we would not have our legislators forget that the reform should not be in the interest of economy alone. We have more than two thousand insane persons who fail to get even the advantages of a good asylum. It will neither be human nor wise to neglect these; and simply securing a reduction in board of two dollars a week will constitute but a small part of a much-needed general reform.

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### THE DINNER TO PROF. S. D. GROSS.

THE complimentary dinner recently given to Professor Gross, of Philadelphia, was an event which will long be remembered by the participants. The occasion was an unusual one, not only in regard to the commemoration of half a century of professional work, but on account of a singular unanimity of feeling of the representative men of Philadelphia and elsewhere, in showing honor to the distinguished guest. To very few indeed is allotted the privilege of active professional life for so long a period, and to still fewer is the gratification allowed of hearing on the eve of a life thus spent in the service of humanity, the plaudits of one's peers, the commendations of those who are best qualified to judge of the merits of one's work. The speakers vied with each other in their expressions of kindly personal feeling, in their appreciation of the labors of the faithful servant of science, and in their good wishes for even greater usefulness.

Prof. D. Hayes Agnew, in his eloquent address, gave the keynote to the sentiment of all present, that of respect and love for the renowned professor. The same sentiments were repeated in the brilliant speeches of Yandell of Kentucky, of Rogers of Philadelphia,

Post of New York, Silliman of New Haven, and Norris of the Army.

The distinguished gentlemen from the different parts of the country who were unable to attend, sent their congratulations by letter and telegram, and helped to make the affair one of the memorable ones of the period.

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THE PLYMOUTH AND YELLOW FEVER.

It is reported that the ship Plymouth, U. S. N., which had yellow fever on her a year ago, and came North, and was emptied, fumigated, and otherwise cleansed, and laid up in Boston through the entire winter to freeze out the fever poison, sailed a few weeks ago for the West Indies, and, when off Bermuda, before touching at any port, had yellow fever break out. How does this alleged fact agree with the belief that the fever poison is destroyed by very low temperature?

It is said that erysipelas occurred, during a China cruise, in the U. S. ship Colorado, from 1870 to 1873. The vessel had had erysipelas on her in 1866, after which she had lain four winters in Portsmouth, N. H., dismantled. She had been repainted, etc., from end to end, for the China cruise. On the latter "they could not cut a finger off in the sick bay, or leave a man in the sick bay with a contusion of the skin, without erysipelas breaking out." They had to treat all such cases in quarters, or at the apothecary's rooms.

Has this fact any bearing on the use of old buildings for hospital purposes, or old hospitals for hotel purposes?

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# Reports of Societies.

## NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, March* 6, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

SECTIONS OF THE BRAIN.

DR. JOHN C. DALTON exhibited several sections of the brain prepared in a manner to which the attention of the readers of the RECORD has already been directed. (See RECORD for Feb. 15, 1879, p. 157.)

CENTRUM OVALE.

In the course of the remarks made by Dr. Dalton, while describing the sections presented, he stated that the *centrum ovale* as seen represented in the books did not exist, and was a picture of the imagination. The reason was that the corpus callosum instead of being a plane was an arched commissure, and it was impossible to make sections which would show what the books illustrated.

ASYMMETRY OF THE BRAIN.

Again, he had not seen a brain which was symmetrical.

With reference to the last point the PRESIDENT remarked that, several years ago, while conversing with an eminent English obstetrician at a dinner party in London, he suggested that observations be made with reference to the symmetry of the fœtal head, believing that the results might have an important bearing upon the question of the mechanism of labor. That gentleman began the observation, had taken models of a large number of fœtal heads, and had demonstrated most conclusively that the fœtal head was not symmetrical.

EYE TROUBLES IN GENERAL PRACTICE.

DR. HENRY D. NOYES then read a practical and interesting paper on the above subject (see p. 361).

The paper being before the Academy for discussion,

DR. H. KNAPP remarked that he agreed essentially with the author of the paper upon nearly all of the points brought forward, and would only add a few suggestions relating to topics of the most practical interest.

OPHTHALMIA NEONATORUM—ACUTE TRACHOMA—ESERINE.

One of the most important affections which the general practitioner was called upon to treat was ophthalmia neonatorum, and hence he had found principles followed which were not exactly what he had regarded best in the treatment of the disease. First, with reference to bandaging such eyes. In cases of blennorrhœa, gonorrhœal ophthalmia, diphtheritic or from granulations, he regarded it as decidedly harmful to bandage the eyes in any shape or form. He was convinced that the affections of the cornea, which were of the most serious consequence, associated with these severe conjunctival inflammations, were mainly due to mechanical injury; that is, to the immediate effect of contact between the surface of the cornea and the inflamed surface of the conjunctiva. In granulations, especially of the acute form, that could be plainly proven, and when such eyes were forced to be kept open, improvement was at once manifest.

Dr. Knapp thought it was not necessary to apply any caustic in the first stage of the ophthalmia of the new-born. He thought it was injurious to use nitrate of silver stronger than *three grains* to the ounce of water, if employed at all, and that the five-grain solution was sufficiently strong for the entire treatment. He believed it was of the greatest importance to use cold applications, certainly in blennorrhœa, gonorrhœa, diphtheria, and also in the rare cases of acute trachoma. The applications in some cases, for instance in diphtheria, should be made night and day, and the nurse should devote the entire time to the care of such a patient. In making the applications care should be taken to open the eyelids, and to carefully wash the secretion away from the inside. That should be done at least every half hour, perhaps as often as every fifteen minutes. The secretion itself was corrosive, would produce a sore upon any surface similar to the one from which it was taken, and in the same way it acted upon the cornea. Afterward, when there was proliferation of the mucous membrane and a profuse creamy discharge, nitrate of silver was the proper remedy to be employed. In the first stage he would abstain from its use altogether, or use it only in weak solution.

There were some cases of acute conjunctival trouble which were perplexing even to experts. In those cases the conjunctiva was intensely swollen and œdematous, perhaps there was but little secretion, and that was by no means purulent. He had always treated such

cases with cold applications, and in a majority of instances they were well borne. Sometimes, if the disease was not intense, warm applications did good, and were recommended by Alt; but those were the milder cases. In the more severe cases which were benefited by the use of cold, the condition in the course of four or five days would disappear in another catarrhal conjunctivitis, and at the end of three or four weeks a crop of granulations would be formed. The case then was certainly one of *acute trachoma*, and before the acute stage had passed he thought it injurious to apply caustics. Cleansing, and the use of cold was the proper treatment.

When the time arrived for the use of astringents and caustics the strength of the solution should be proportionate to the swelling of the mucous membrane, and the copiousness of the discharge. He rarely resorted to divison of the outer commissure, and did it chiefly for the relief of obstinate cases of spasm. He thought that perhaps the operation was performed too frequently. He also believed that slitting the cornea was done a little too frequently. The antiseptic treatment of these diseases, as practised in Europe, certainly yielded excellent results, yet he was not quite certain but that thorough cleanliness without bandaging might prove equally successful. There was one remedy which exerted a decided influence upon many of these processes, and that was *eserine;* not employed as an antiseptic, but as a remedy to *reduce tension*. He employed it in solution, grs. iv. to the ʒi. of water; its action was manifested sooner and continued longer than that of atropine used of the same strength, but whether it had the same tendency to irritate the conjunctiva he was not prepared to say.

### SYMPATHETIC OPHTHALMIA.

According to an authority to whom Dr. Noyes had referred, the tenderness in the eye was most pronounced in the upper ciliary region, and strange to say the tenderness would commence in the other eye in the same region. When, therefore, there was tenderness in the upper ciliary region, as well as in other parts of the eye, and the same condition existed in the other eye, it was probable that sympathetic trouble would be developed.

### SEROUS IRITIS.

The serous iritis he regarded as the least dangerous, and was so without enucleation or operation upon the other eye. It would almost always get well.

### ESERINE—ASTHENOPIA.

Dr. C. S. Bull emphasized the use of *eserine* in the treatment of suppurative troubles in the cornea. He had been pleased with its effects, not as an antiseptic, but as a relaxor of intra-ocular tension and as a queller of pain which would not yield to atropine. He also referred to the relation between asthenopia, or failing vision, double vision, vertigo, nausea, and headache, and uterine disease. Dr. Swanzey, of Dublin, had met with fifteen or twenty such cases in which there was no error in refraction, and by proper treatment of the uterine disease the eye symptoms were ameliorated, and in many they disappeared.

### SBYOPIA — ASTHENOPIA — STRABISMUS—HYPERMETROPIA.

Dr. O. D. Pomeroy referred to the use of presbyopic glasses. He recommended that convex glasses should be used by those who had the slightest difficulty in reading fine print, providing they were able to relax the accommodation.

With reference to the treatment of asthenopia the patient should try to relax accommodation and should avoid excessive fatigue. "The eye should be rested before it became tired."

With reference to strabismus he had noticed that there was usually a disposition to relapse. But if he found far-sightedness he employed glasses to be worn constantly, such as were indicated by ophthalmic examination. The glasses might make the patient near-sighted, but it was the only way in which he had been able to prevent the eye from turning inward.

He was inclined to believe that slight hypermetropia was not an abnormal condition.

### GLAUCOMA—ASTHENOPIA.

Dr. D. Webster remarked that the presence of glaucoma was too frequently overlooked by the general practitioner. In acute glaucoma it was far more dangerous to make a mistake in diagnosis than in the chronic form of the disease. Acute glaucoma was usually mistaken for neuralgia. He then referred to two cases in which the glaucoma was overlooked; the supposed neuralgia was treated by opium, the opium habit was acquired, and the disease progressed to a point at which sight could not be restored by an operation.

### SYMPTOMS OF ACUTE GLAUCOMA.

Acute glaucoma should be recognized by the general practitioner, and the points in diagnosis were the following: Comparatively sudden loss of vision within a few hours, a day or a week; great redness of the eyeball; great pain in and about the eyeball; increase of tension, and dilatation of pupil. There was no other disease which produced those symptoms, and an iridectomy done within a few days almost inevitably saved the eye.

In acute glaucoma, supervening upon the chronic, iridectomy would restore the vision to what it was before the attack. He thought all ophthalmologists saw cases in which eyes could have been saved if iridectomy had been performed for *acute glaucoma*.

With reference to asthenopia, Dr. Webster referred to a case which had been treated one or two years by four skilful physicians for nasal catarrh. The symptoms of which the clerk complained were a sense of pressure at the root of the nose and inner corner of the eyes, a feeling of dulness in his forehead, and he found it hard work to do mental labor; there was no pain. On examination without atropine the eyes were found to be normal. Atropine was introduced into both eyes, and at the end of an hour they were found to be hypermetropic $\frac{1}{5}$; vision $\frac{20}{15}$. After the return of the accommodation he accepted +24 with each eye. Those strong convex glasses were prescribed, and it was not long before all his symptoms disappeared.

### CONJUNCTIVITIS—CANTHOPLASTY—FOREIGN BODIES IN THE CORNEA—DOUBLE VISION PRODUCED BY STRABISMUS—RELATION OF THE IRIS TO THE CRYSTALLINE LENS.

Dr. De Rosset thought it very important to make an accurate diagnosis of what appeared to be trifling affections of the eye. Cleanliness and the application of warm water would cure almost any case of pure inflammation of the conjunctiva, and yet such cases would stand almost any kind of mild astringent treatment. There were cases in which there was such severe pressure upon the eyeball that the cornea was kept soaked with the discharge from the conjunctiva, and it was important that such pressure should be removed. To accomplish that he divided

the outer commissure. Dr. De Rosset then referred to the irritation which might be set up by a very small foreign body lodged in the cornea, and which very often escaped the notice of the general practitioner. He also referred to double vision produced by very slight degree of strabismus in little children, a fact not infrequently overlooked by the general practitioner, and therefore the double vision became an alarming symptom. Dr. Noyes had spoken of the iris as always lying upon the lens, but he believed that it retired from the lens, because he had seen dilatation to such an extent that the pupillary area was larger than the diameter of any lens which the eye could contain.

Dr. Noyes, in closing the discussion, remarked that he had simply spoken of the treatment of conjunctival disease in its later stage, and that he was pleased with the remarks made by Dr. Knapp because the subject was thereby made symmetrical. In addition, he referred to keratitis occurring in young children. These remarks have been placed in the body of the paper.

The Academy then adjourned.

## NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, March* 26, 1879.

Dr. E. L. Keyes, President, in the Chair.

### THROMBOSIS OF PRIMITIVE ILIAC ARTERY.

Dr. Post presented a specimen of thrombosis of the primitive iliac artery, which had been removed from the patient whose gangrenous leg was exhibited at the previous meeting. The patient died two days after the operation. The thrombosis completely plugged the primitive iliac and extended upward into the aorta, several inches above the bifurcation, but only partially obliterating that vessel. The plug also extended into the femoral and its branches. Whether the thrombosis originated in arteritis or in calcification of the arteries, it was impossible to say.

### RESECTION OF ANKLE-JOINT.

Dr. Post also presented the lower extremities of the tibia and fibula which he had removed the Thursday previous by exsection. The patient, aged thirty years, was admitted into the Presbyterian Hospital, during the service of Dr. Shrady, with a compound complicated fracture of the lower extremities of the tibia and fibula. The patient was admitted on the third day after the accident, the parts being in a swollen and inflamed condition. The wound was cleansed with solution of carbolic acid, and also dressed with the same, the parts being kept in as good position as was possible. In the course of two or three days afterward erysipelas developed, and the patient was transferred to the hut. Free incisions were made in the soft parts, evacuating quantities of broken-down material. In the meantime the soft parts over the internal malleolus had sloughed, exposing the bone to the extent of several inches. The lower fragment, became loose in the course of the following month and was removed by Dr. Shrady. During the months which passed since that time the parts had been very nearly *in statu quo*, the lower end of upper fragment presenting itself in the wound, and the ankle-joint remaining open and discharging pus. It was supposed that the bone being necrosed would separate in due time. Recently, on examining the part and finding no tendency toward separation, and concluding that there was no indication for longer delay, Langenbeck's operation for sub-periosteal excision of ankle-joint was performed. The bones were sawed off an inch and a half above their lower extremities. Neither tendinous sheath, nerve or vessel in the neighborhood was injured during the operation. After the removal of the ends of the tibia and fibula it was found that the upper part of the astragalus was softened. That portion of the bone was accordingly removed by the ring-scraper. The limb was then placed on a plaster apparatus, free drainage being established by means of fenestra appropriately placed.

### ANTISEPTIC DRESSINGS IN COMPOUND FRACTURE.

Dr. Howe asked if antiseptic dressings were used in this case when the fracture was admitted to the hospital.

Dr. Shrady answered in the negative. In his opinion too much time had elapsed from the receipt of the injury to allow of any benefit from the full antiseptic treatment. However, the wound was kept clean, drainage was established, and carbolic lotion was freely applied.

Dr. Howe referred to a case of compound fracture of the ankle-joint which was admitted to St. Francis' Hospital. In that case the full antiseptic method was used immediately after the accident, and the case progressed without an unfavorable symptom.

Dr. Keyes referred to a similar case treated within four hours after the accident, and in which the result was equally satisfactory.

Dr. Howe exhibited a specimen, consisting of the lower ends of tibia and fibula, which he had removed by exsection under Lister.

In conclusion, Dr. Howe remarked that there was no comparison to be made between the advantages of the Lister method with the other methods of dressing wounds.

### POISONING BY CARBOLIC ACID—INJECTION INTO AN ABSCESS.

In this connection Dr. Post related the following case of poisoning by carbolic acid:

A boy about five years of age was brought to the clinic of Dr. Post with a subacute abscess in the gluteal region, connected with old disease of the hip-joint. For a week or two before that time the patient had suffered from severe pain in the part. Fluctuation being discovered, Dr. Post made an incision, evacuating two or three ounces of pus. The cavity thus left was injected with a solution of carbolic acid, according to the method advised by Mr. Callender of London. Three injections were used each time, the contents of the sac being pressed out. A drainage tube was then introduced, and a compress and bandage applied. The child was left in the adjoining room at the close of the clinic. Nothing was noticed in the condition of its pulse or respiration to indicate anything unusual. During the same afternoon Dr. Post was summoned to the college to see the child who was said to be dying. It was discovered apparently asleep, some time after the clinic, by the clerk of the college. The latter not being able to arouse the patient, sent for Prof. Weisse, who was in the building at the time. Dr. Weisse, on examining the case, found the radial pulse absent, the skin pale, cold and damp, the respiration short and hurried, and over a hundred per minute. He immediately administered a hypodermic injection of twenty-five minims of brandy. The patient rallied but slightly from this. The pupils being contracted to the size of mere pin-holes, Dr. Weisse administered a hypodermic injection of five

drops of extract of belladonna, which he followed by another injection in five minutes afterward. The pupils then became extremely dilated, the pulse was distinctly perceptible at the wrist, the respiration from over a hundred per minute came down to seventy. In this condition the patient was sent to Bellevue Hospital, where he has continued to improve. Dr. Post thought that the case was one of carbolic acid poisoning.

NOVEL ARTERIAL DISTRIBUTION OF ARTERIES AT BASE OF SKULL—BUT ONE INTERNAL CAROTID ARTERY.

DR. WYETH presented an injected specimen of the arterial arrangement, at the base of the brain, in a man aged thirty-five years, who had but one internal carotid artery. The right common carotid was present and normal. The left common carotid, about half the ordinary size, sprang from the arch of the aorta as usual, and terminated in the distribution of the left external carotid. There was no carotid canal on this side.

The right internal carotid divided into the anterior and middle cerebral, and gave off a large posterior communicating branch, which joined with the basilar. From this right (and *only*) posterior communicating branch the right posterior cerebral was derived. The right anterior cerebral quite large, divided into three branches, one of which crossed underneath the corpus callosum to the right anterior lobe of the brain. The basilar gave origin to a large trunk which passed obliquely forward and to the left, giving off in succession from behind forward the left posterior choroid, posterior cerebral, anterior choroid, and left middle cerebral which pursued its usual course along the fissure of Sylvius. From this last vessel a very small branch about two centimetres long crossed obliquely to the right, to join the right anterior cerebral. This was the substitute for the anterior communicating. Dr. Wyeth stated that the absence of the internal carotid was an exceedingly rare occurrence. In one hundred and twenty-one consecutive dissections he had made of the surgical triangles of the neck, this was the only case he had seen in which he had failed to find this abnormal arrangement in a large number of other dissections, of which no notes were made. Only two other cases are recorded. *Koberwein* states he had seen a skull in some European Museum with only one carotid canal. Dr. Eugene Peugnet, of New York, reports the other case in an operation performed by him in 1876. [See MED. RECORD, Vol. XI., 1876.] The skull and specimen are contributions by Dr. Wyeth to the Wood Museum of Bellevue Hospital.

DR. FOREST presented a heart removed from an infant four months old, who had died without any symptoms which might lead to a diagnosis. At the autopsy the organ contained an organized clot in the right ventricle. The brain was not examined. In answer to a question, he stated that the foramen of Botal was not patulous.

DR. FLINT thought that death was probably induced by embolism of pulmonary artery. The Society then went into Executive Session.

THE PLAGUE.—There have been no new cases within the infected area on the Lower Volga since February 9th, and the rigid quarantine that has been preserved is being somewhat relaxed. Sporadic cases of what is called the plague still appear in various parts of the country. Dr. Botkine takes the ground that these are genuine cases, and that the disease is now milder than it was in former epidemics.

# Correspondence.

## THE COMPLIMENTARY DINNER TO DR. S. D. GROSS.

(Special Correspondence.)

PHILADELPHIA, April 12, 1879.

THE complimentary dinner tendered to Prof. Samuel D. Gross, in commemoration of his fifty-first year in the practice of surgery, took place on Thursday evening, April 10th, at St. George's Hotel, southwest corner of Broad and Walnut streets, Philadelphia. The original plan had been that the dinner should be held at the Union League Club, but the accommodations not proving sufficient for the number of guests expected, the location was changed to the St. George Hotel. The large dining-room of the hotel was richly decorated with plants and flowers. The music was furnished by Carl Sentz's orchestra.

The subscriptions to the dinner ($10 each) were limited to one hundred of Prof. Gross's professional friends in Philadelphia. Among the invited guests present were Professors Lewis A. Sayre, James R. Wood, Austin Flint, Sr., Austin Flint, Jr., and Alfred C. Post, and Drs. George F. Shrady, Wm. Bozeman, and M. J. Asch, of New York City; Drs. Van Bibber and Allen P. Smith, of Baltimore; Surgeons Basil Norris and George Otis, U. S. A., of Washington; Prof. Benjamin Silliman, of Yale College; Prof. David W. Yandell, of the University of Louisville, Dr. Gross's successor in the chair of surgery in that institution; Prof. Theophilus Parvin, of Indiana; Dr. Jamar, of Maryland; Dr. Bowen, of New Jersey; Dr. Cardeza, of Delaware; Dr. R. B. Cole, of California; Dr. Traill Green, of Easton, Pa.; Drs. Helsby, Lyon, and Crawford, of Williamsport, Pa.; Dr. Given, of Clifton, Pa.; Dr. Kerlin, of Media, Pa.; Dr. Herr, of Lancaster; Drs. Craig and Sineawearer, of Columbia, Pa.; Dr. Bland, of Pottsville, Pa.; and Dr. Anderson, of Ardmore, Pa. Among the prominent Philadelphia physicians present were Profs. Robert E. Rogers, Ellerslie Wallace, Joseph Pancoast, J. Aitken Meigs, William Thomson, and J. M. Da Costa, of Jefferson Medical College; Profs. D. Hayes Agnew, James Tyson, Wm. Goodell, and Harrison Allen, of the University of Pennsylvania; and Drs. S. W. Gross, S. Weir Mitchell, Thomas Kirkbride, Ellwood Wilson, Richard J. Levis, Thomas G. Morton, J. Ewing Mears, Albert H. Smith, E. B. Gardette, Addinell Hewson, John H. Brinton, John H. Packard, and Andrew H. Nebinger.

Dr. David Yandell came from his Kentucky home loaded down with flattering messages from Dr. Gross's friends in Louisville. President Lyon, of the Detroit Academy of Medicine, sent the following:

DR. S. D. GROSS, *Philadelphia:*

The Detroit Academy of Medicine send hearty congratulations on the occasion of this jubilee in your professional life. May years of work crown with new honors one of whom America is justly proud.

A. B. LYON, *President D. A. M.*

Other congratulatory messages were read from Professors Oliver Wendell Holmes and Nathaniel Bowditch, and Dr. Horatio Storer, of Boston; from Professors Wm. H. Van Buren, Fordyce Barker, Willard Parker, Frank Hastings Hamilton, and Henry B. Sands, of New York City; from Surgeon-General Barnes and Surgeon Billings, U. S. A., of Washington; from Drs. Chaillé and Richardson, of New Or-

leans; from Prof. Christopher Johnson, of Baltimore; from Prof. Cabell, of the University of Virginia; from Prof. N. S. Davis, of Chicago; from Professors Hogden and Gregory, of St. Louis, and from Dr. Kimlock, of Charleston, S. C.

Prof. Gross sat at the head of the table, with Prof. Agnew, the presiding officer of the evening, on his left, and Prof. Austin Flint, Sr., on his right. The congratulatory address to Dr. Gross, the first event on the programme, was delivered by Dr. Agnew, who, as he sat down, touched Dr. Gross on the shoulder and said: "Allow me, in the name of your professional friends, to pin this token on the lappel of your coat." It was a gold medal, set with diamonds and brilliants, and bearing on its reverse this inscription:

"Presented to Dr. S. D. Gross by his medical friends, in commemoration of his fifty-first year in the profession, April 10, 1879."

Dr. Gross responded as follows:

"In rising to respond to the toast offered by the distinguished chairman, I feel deeply oppressed by what Dr. Rush has so well described as 'suffocated excitement.' You need not be assured how much I appreciate the honor conferred by the occasion and by this warm reception. The sentiments embodied in the toast touch my heart, and I should indeed be dead to all the finer feelings of my nature if I did not tender you my most cordial and respectful acknowledgments. It is no light compliment to be in such a presence, or to be the guest of such a company. To merit the approbation of my professional brethren and of good men generally has ever been my highest ambition, as it must be of every honest aud virtuous citizen. The offer of a public dinner, extended to me a few weeks ago by a committee of my professional friends, took me completely by surprise, and would probably have been promptly declined if it had not been accompanied by such kind and flattering words as at once to satisfy me that they came from the heart. The commendations which you have bestowed upon my private character and public services as a practitioner and teacher of surgery are measured, I am conscious, rather by your own generous feelings than by any deserts of mine. Whatever value those services may possess, it is no ordinary consolation to me to know that they are appreciated by men among whom I have lived for nearly a quarter of a century, with many of whom I have been brought into frequent contact in various relations of life—often, indeed, under circumstances of a most trying kind—with some of whom I have been officially associated, and with none of whom, thanks be to God, I have ever had one word of misunderstanding.

"It is not a pleasant thing to speak of oneself, but there are a few circumstances in the history of my uneventful life to which I may perhaps be pardoned for referring upon this occasion. I have grown old in the profession, as pupil and practitioner for fifty-four years, my graduation dating back to March, 1828. A little over one month ago I closed my thirty-ninth course of lectures on surgery. If to these thirty-nine years be added two years spent as demonstrator of anatomy in the Medical College of Ohio, and four years passed in the medical department of the Cincinnati College as professor of pathological anatomy, it will be perceived that my life as a public teacher extends over a period of forty-five years. During all this time it has been my good fortune to miss few lectures, either from sickness or any other cause. If my teaching has not always been of the best quality it has been as good as I knew how to make it. Whatever estimate may have been placed upon it by those who listened to it I can solemnly declare that it has always been earnest and conscientious, with an eye single to the interests of my pupils, the truths of medical science, and the honor and dignity of the profession. On no occasion have I entered the amphitheatre without due preparation. One of the great objects of my early professional life was to qualify myself for the occupation of a public teacher. This idea, which haunted me as I sat upon the hard benches of my alma mater, like the demon of Socrates, gave me no rest day or night. My first effort in this direction was made in this city, at the Franklin Institute, in the spring of 1830, the subject being general anatomy, a branch of study then little understood or cared for in this country. The effort, however, proved to be an abortive one. The novelty of the subject, my own inexperience, and the paucity of students in the city at that season of the year were the causes of my failure. Finding practising and lecturing in so large a city to be up-hill work, I removed to Easton, in this State, whence, after two years and a half spent in earnest work, I went, in 1833, to Cincinnati as demonstrator of anatomy in the Medical College of Ohio. From this institution, after a service of two years, I was called to the chair of pathological anatomy in the Cincinnati College, in which I gave the first regular and systematic course of lectures on that most important branch of anatomy ever delivered in this country. In 1840 I was invited to the chair of surgery in the University of Louisville. In 1850 I became the successor of Dr. Valentine Mott in the University of New York, but returned after the close of the session to the school in Kentucky. In 1856 I accepted the chair of surgery in my alma mater, unanimously tendered me by its honorable Board of Trustees.

"Having been thus actively engaged for so many years as a public teacher, it is not surprising that my pupils should be scattered over the country, while not a few of them are successfully practising in foreign climes. Upwards of five thousand diplomas bear my signature. Of the thirty-seven colleagues with whom I have at various times been associated, twenty-six have fallen by the wayside, for the most part ripe in years and full of honor, leaving eleven survivors, among others Willard Parker, Austin Flint, and John W. Draper, of New York; Benjamin Silliman, of New Haven, and our distinguished townsman, Joseph Pancoast, five men of whom any profession in any country might justly be proud. It has been said that youth is a blunder, manhood a struggle, and old age a regret. If this be true I have not realized it in my own person; nor need it be true of any one who is true to himself. Struggles of some kind or another are almost the inevitable lot of every man who is not born with a silver spoon in his mouth. I certainly had mine, but they were the struggles of early life, and I thank God for them, for they taught me patience and perseverance and self-reliance, and were powerful aids in developing character. These struggles did not discourage me. On the contrary, I felt as Sheridan did when he made his maiden speech in the British House of Commons—that it was in me and would come out of me; or, as Erskine expressed it on a similar occasion, I felt as if my children were tugging at my coat and urging me on to industry and perseverance that I might supply their necessities. A brave man never yields to despair. His motto is 'Perseverantia omnia vincit.' This has been my motto, and whatever success I may have achieved is due to persistent effort and to a definite aim in life without any faltering or misgiving in regard to the final issue. I have never lost sight of the fact that what a man

soweth he shall reap, or that 'if the spring show no blossoms, autumn will show no fruit.'

"Much has been said about the inspiration of genius. The greatest efforts that have ever been made at the forum, in the pulpit, or in the senate, in ancient or modern times, were the result of hard study and patient labor. Patrick Henry, William Pinckney, Rufus Choate, and others like these, never made a great argument or a great oratorical display without preparation, and the same is true of every profession and every pursuit. After fifty years of earnest work I find myself still in the harness; but although I have reached that age when most men, tired of the cares of life, seek repose in retirement and abandon themselves to the study of religion, the claims of friendship or the contemplation of philosophy, my conviction has always been that it is far better for a man to wear out than to rust out. Brain work, study, and persistent application has been a great comfort to me, as well as a great help; it has enhanced the enjoyment of daily life and added largely to the pleasures of the lecture-room and of authorship; indeed it will always, I am sure, if wisely regulated, be conducive both to health and longevity. A man who abandons himself to a life of inactivity after having always been accustomed to work is, practically, dead.

"In taking a retrospect of my life I have no regrets. I console myself with the belief that I have not lived wholly in vain, and that while much remains undone that might and should have been done, it might be reasonable to suppose that at least some of the seed which I have sown have produced good fruit. It is not given to every man to be a Harvey, a Hunter, a Jenner, a Bichat, a Morton, a Paget or a Virchow. 'By the grace of God,' says St. Paul, 'I am what I am.' No man can rise superior to himself. What is fame? Is it a phantom or is it a reality? Alas! too often the former; too seldom the latter. Few medical works, however meritorious, outlive their authors, and no sooner does a teacher retire from the field of his labor than his pupils worship other gods. Happy, thrice happy, is he who in the evening of his life, as he reviews his past conduct, can say to himself, 'I have been true to my profession. I have been ambitious of its glory; I have done nothing to tarnish its escutcheon.' As I look back through the dark vista of half a century, what memories crowd upon my mind! Kingdoms have crumbled to pieces; new dynasties have sprung up; the world has been drenched in blood by contending armies; millions of human beings have been swept away by pestilence and famine; civilization, commerce, the arts and sciences, religion and education have found new homes; the uttermost parts of the globe have been explored by intrepid navigators and adventurous travellers; time and space have been annihilated by the telegraph, and the employment of steam and the application of machinery have changed the occupations of man and thrown upon us a surplus population, which the wisest statesmen know not how to dispose of. The art and the science of medicine have been completely revolutionized and enriched to an extent which fifty years ago would have baffled the wildest conceptions. During these vast changes, so pregnant in beneficence to mankind, America has not been idle. If she had contributed nothing more to the stock of human happiness than anæsthetics, the world would owe her an everlasting debt of gratitude. The fanciful and mischievous speculations which characterized medicine in the days of my youth have been replaced by sober facts, founded upon more carefully conducted observations and more rational deductions. In preventive medicine a new field has been opened which, if properly explored and cultivated, as it seems destined to be, will add millions of years to the life of the human race. Oh! for a glance at the profession half a century hence, when man, enlightened and refined by education and redeemed from the thraldom of ignorance and superstition, shall reflect more perfectly than he now does the image of his Maker.

"I thank you, Mr. Chairman, and you, gentlemen, who have honored me with your presence here this evening, for the patience and attention with which you have listened to my rambling remarks. Allow me, before I take my seat, to wish you, one and all, prosperity and happiness, and to drink your health with a heart brimful of gratitude for the many favors that have been showered by my professional brethren upon me."

Professor Rogers delivered the address of welcome to the guests, and Prof. D. W. Yandell replied. The toasts were: "To American Surgery," replied to by Prof. A. C. Post; "The Medical Service of the Army and Navy," by Surgeon Basil Norris; "The Medical Profession," by Dr. Traill Green, and closing remarks were made by Prof. Silliman. * * *

## PLEURO-PNEUMONIA IN CATTLE.

DEPARTMENT OF HEALTH, 66 Court Street.
BROOKLYN, April 14, 1879.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Your correspondent, R. W. Finlay, impeaches the State authorities, charged with the extermination of the *bovine lung fever*, with mistaking *simple pleuro-pneumonia* for the specific disease in question. His charge would be a serious one if founded on a substantial basis; but as it is, it is difficult to correctly characterize the statements which he advances in the name of argument. The cattle in the *Blissville distillery stables were not affected with contagious pleuro-pneumonia*, because Professor Williams, in opposition to Professors Duguid, McCall, and Walley, pronounced that steers *shipped at Portland, Me.*, were not so affected. If Mr. Finlay has any private information showing that the cattle shipped on the *Ontario* from *Portland, Me.*, were taken from the Blissville stables, it will go far to settle the question as to the nature of the disease about which the professors differed at Liverpool. If he has not, perhaps he will kindly enlighten your readers as to the possible connection between the cattle shipped at Portland and those in the Blissville stables.

"Veterinary surgeons and stock-raisers in various parts of the country . . . have failed to discover the innumerable quantity of animals affected, as reported in the daily papers." Mr. Finlay is welcome to his empty honor of demolishing this man of straw, for whom the State authorities are in no sense responsible. This disease exists in a comparatively limited area on the Atlantic seaboard, and its extinction here is a possible and comparatively easy task, while the neglect of it means the gravest injury to the future live stock interests of the country. "At Blissville the mortality from the disease was slight. The majority of the animals were slaughtered and sold in the markets as beef. This is not in keeping with a malignant disease *theory*." If Mr. Finlay and his colleagues had been "well acquainted with the history and pathology of the disease in Europe," they would have known that this is precisely the European record of this disease. In the large cities of Great Britain

and the Continent, it is altogether exceptional for a cow to die of pleuro-pneumonia. The dairymen purchase mainly cows in good condition, and when the first symptoms of the malady are shown, they send them to the slaughter-house for beef. It is a common remark with them that they would get rich if they could only keep the cows alive for three months after purchase.

But to return to the Blissville stables. Between the time of the first examination by Professors McEachran and Liautard and Mr. Gadsden and the establishing of quarantine, nearly 300 cows had been removed from these stables for slaughter or otherwise, so that comparatively few *diseased cattle* were left. Yet, of the 600 that remained, we had to send sixty-four to the offal-dock, and about 150 more, slightly affected, went to the Johnson Avenue slaughter-houses. In other words, we slaughtered and furnished indemnity certificates for over one-tenth of the animals left after the diseased had been weeded out, to the best of the owners' knowledge; while, by adding those in which traces of the malady were found, we had a grand total of nearly one-third of the entire stock affected. It will, perhaps, puzzle Mr. Finlay to find another such record in the history of the disease. Mr. F. cannot claim any necessary ignorance of these facts, as this thing was not done in a corner, and every facility was afforded to himself and colleagues for examinations and autopsies on any condemned animals they might select.

It would be easy to multiply cases showing the contagious nature of this affection in and around Brooklyn and New York, but I shall not encroach on your valuable pages further than to mention one or two instances of its conveyance to country districts, where the source of the malady could be undoubtedly traced:

Mr. Wheelock, of Roslyn, L. I., bought two cows from a New York dealer. They sickened soon after, infected the rest of his herd, and six were lost before the plague could be stayed.

Mr. Kenyon was so satisfied it was not contagious, that he purchased and took home two of Mr. W.'s cows. One of these sickened and died, and infected several of his herd, one of which had to be destroyed to prevent the maintenance of the contagion.

Mr. Post, of Westbury, L. I., purchased a cow from a passing herd, said to have come from a swill stable near Brooklyn. She infected his herd and his brother's, and, after heavy losses, they found it needful to kill all the survivors, and begin anew with fresh stock.

Mr. Gilbert Miller, of Katonah, Westchester County, took in a Jersey cow, sent from Mott Haven as a present to his son-in-law. Three months later, his herd was generally infected, and the Jersey cow and two more out of six died.

Mrs. Robertson's herd, occupying a place across the road, suffered from the disease three months later, and five out of twelve died.

Mr. Collins, Fiftieth Street, New York, had a Jersey cow sick with a sporadic (?) disease of the respiratory organs, from which she recovered under the care of a veterinarian. Her calf was sent to the farm of Solomon Mead, of Greenwich, Conn. The calf sickened and died in a little over two weeks after arrival, but infected the whole herd, five of which had died up to the time of my visit.

One of Mr. Mead's cows broke out and went into the herd of Mr. Griffin, and at the time of my visit Mr. G. had lost one and had two sick.

These are examples of what we meet with every day. If Mr. Finlay can see this disease without tracing similar channels of contagion, I fear that his blindness must be wilful.

I cannot conclude without a reference to Mr. Finlay's sneer at the "stamping out" of the disease. The most superficial acquaintance with the history of this malady would have shown him that this is the only successful method of dealing with this and other fatal contagions of animals. The method was inaugurated in England in the early part of the eighteenth century by advice of Mr. Bates, Surgeon to the Royal Household, for stamping out rinderpest. It was again successfully adopted in the middle of that century to root out a new importation. It was a third time put in force in 1866, and a fourth in 1877, to suppress invasions of the same plague. It was repeatedly resorted to to cut short ovine variola on English soil, and it is now being put in force against the lung fever. On the Continent of Europe it is now recognized as the only economical and effective mode of dealing with rinderpest, and the following countries have successfully resorted to it for the extinction of the bovine lung plague: Switzerland, Mecklenburg, Oldenberg, Schleswig-Holstein, Denmark, Norway, and Sweden, and the plague-stricken Holland herself is now putting it in practice. In America it has been repeatedly successful in Massachusetts and Connecticut.

It is doubtless possible to surround the patients and their products with disinfectants, to secure a certain percentage of recoveries, and to let the malady expire by its own self-limitation. But the expense of such a course would far exceed the value of the animals saved, and when attempted on a large scale, over half a dozen different States, it would be subject to incessant lapses and failures, and would thus become a means of spreading the disease. As all sanitarians must admit, that method is the best which will most speedily and effectually extinguish the poison, and do this at the cheapest rate. All of these conditions are met by the *stamping out* process, and whatever retards or hinders this is essentially unsanitary and wasteful. Into this domain no moral question intrudes: it is a purely pecuniary question, and if it could be solved by the slaughter, not of the sick only, but of all the cattle in the infected districts, it would be a much more economical course than to allow the malady to spread till it reaches our open Western ranges, where all attempts at *stamping out* would only repeat the disastrous failures of the steppes and of the unfenced African and Australian pastures.

Yours, &c.,
JAMES LAW.

## Obituary.

### ISAAC HAYS, M.D.,

OF PHILADELPHIA, PA.

DR. ISAAC HAYS, the editor of the *American Journal of the Medical Sciences*, died late on Saturday, April 12, at his residence, 1525 Locust Street, Philadelphia, after an illness of two months, in the eighty-third year of his age. Dr. Hays was born in Philadelphia on July 5, 1796. He was educated at the University of Pennsylvania, and graduated from the department of arts in 1816, and from the medical school four years later. He was an office student of the late Nathaniel Chapman, M.D., and a classmate of the late

Dr. George B. Wood. In his profession he was principally famed as an oculist, although his practice was not always limited to this specialty. He began his connection with the *American Journal of the Medical Sciences* in February of the year 1827. He was, therefore, at the time of his death, the oldest living editor in the United States, having been on the staff of the journal for fifty-two years.

When, in 1875, the question was raised as to who was really the oldest living American editor, Henry C. Lea, in an article in the New York *Evening Post*, entitled "Reminiscences and Contemporary Sketches of American Book Publishers," said: "I believe Mr. Bryant has been longer in the editorial chair, but doubt whether Dr. Hays has another senior." William Cullen Bryant's death gave Dr. Hays the undisputed title. The paper of which he was editor was first started in 1820, under the title of the *Philadelphia Journal of Medical and Physical Sciences*, with several eminent physicians—among them Dr. Chapman—as editors. Matthew Carey & Sons were the publishers. Dr. Hays took the place of Dr. Goodman, who resigned to accept the professorship of anatomy in Rutgers Medical College, New York. He immediately became virtually the editor, and at once instituted some important changes, imparting to it a more broadly representative and national character by securing the co-operation of the leading medical minds in all parts of the country, and by the adoption of a new title, the *American Journal of the Medical Sciences*.

In November, 1827, Dr. Hays became sole editor, and so remained until 1869, when his son, Dr. I. Minis Hays, who had graduated from the medical department of the University of Pennsylvania in the previous year, became associated with him. In the year 1843 the success of this journal led to the establishment in connection therewith of a monthly, entitled the *Medical News*, and in 1874 to that of the *Monthly Abstract of Medical Science*, both under the same editorial supervision. Under the name of the *Journal*, when Dr. Hays first took charge of it, were printed the words, "What does the world yet owe to American physicians or surgeons?" This theme was discussed from time to time with much vigor and pointedness in the editorial columns. The ownership of the *Journal* has always remained in the same family, Henry C. Lea, the present publisher, being a grandson of Matthew Carey. It was particularly prosperous toward the close of 1871, and its circulation has been steadily increasing ever since then. Of late years the main duties of editor have fallen upon Dr. I. Minis Hays.

Dr. Hays was a member of the famous Dr. Caspar Wistar party, known as the "Wistar party." Dr. Wistar had been in the habit of giving a social dinner and party at his private residence on every Saturday night. The dinners became a standing thing, and when Dr. Wistar died several of his gentlemen friends formed the aforesaid association. It was composed of twenty gentlemen, and its object was merely social. Among its members were Horace Binney, William Meredith, John Sergeant, Gen. Cadwalader, John K. Kane, Henry C. Carey, Dr. George B. Wood, and Professor Bates.

Dr. Hays edited Hall's edition of "Wilson's American Ornithology," in 8 vols., published in 1828; "Hoblyn's Dictionary of Medical Terms," published in 1846; "Lawrence on Diseases of the Eye," published in 1847; and "Arnott's Elements of Physics," published in 1848.

While editing the *Journal* and all these books, he attended regularly an almost illimitable number of medical and scientific societies. He was among the founders of more than a dozen associations, the oldest member of a dozen more, the chief officer of another dozen, and the surgeon and attending physician to several hospitals.

He belonged to the American Philosophical Society, was at one time a curator, and for a number of years a member of its council. He was one of the earliest members of the Philadelphia Academy of the Natural Sciences, and from 1865–69 was its president. In the Philadelphia College of Physicians, which he joined in 1835, he was very active and was particularly instrumental in locating it at its present site. There are now but three members of the college living who belonged to it when Dr. Hays came in. When the project of establishing the Franklin Institute of Philadelphia was first discussed, Dr. Hays took a very prominent part in the matter, and when he died, was its oldest member. He was a member of the staff of Mill's Eye Hospital, and was one of the founders of the American Medical Association, having been the author of its code of ethics, adopted in 1869. This code, which inculcated the relations of the medical profession to each other and to the profession at large, has since been adopted by every State and county medical society in the Union.

There were many other societies that claimed Dr. Hays either as a regular or honorary member. He kept in his desk a huge pile of letters mailed to him at various times, informing him of his elections. Letters from societies in Boston, Chicago, Cincinnati, and other large and small cities were among the pile. Though never abroad, he belonged to various European societies, among which were the Royal Society for Northern Antiquities, of Copenhagen; the Medical Society of Hamburg, and the Université D'Ophthalmologie, of Paris. Dr. Hays possessed a very extensive library. The walls of his study were lined with books. Many volumes were of great rarity.

In an editorial notice in the New York *Evening Post*, in 1875, one of Dr. Hays's more recent works, William Cullen Bryant, its then venerable editor, now dead, took occasion to allude complimentarily to Dr. Hays's long editorial labors, comparing them with his own, and substantiating Mr. Lea's statement in expressing the opinion that, next to himself, Dr. Hays was the oldest living editor in continuous service in America.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 6 to April 12, 1879.*

TOWN, F. L., Major and Surgeon. Par. 4, S. O. 58, A. G. O., March 11, 1879, directing him to accompany recruits to the Pacific Coast, is revoked, and he will proceed at once to Ft. Vancouver, W. T., and report in person to the Commanding General of Dept. of the Columbia for assignment to duty. S. O. 82, A. G. O., April 5, 1879.

HARTSUFF, A., Major and Surgeon. Assigned to duty as Post Surgeon at Ft. Wayne, Mich., relieving Asst.-Surgeon J. B. Girard. S. O. 55, Dept. of the East, April 10, 1879.

GIRARD, J. B., Capt. and Asst.-Surgeon. Relieved from duty in Dept. of the East, to accompany the 22d Infantry to Dept. of Texas, and, on arrival, report to the Commanding General of that Dept. for assignment to duty. S. O. 83, A. G. O., April 7, 1879.

MERRILL, J. C., 1st Lieut. and Asst. Surgeon. Now

on sick leave, relieved from duty in Dept. of Texas, and to report in person to the Commanding General Dept. of Dakota for assignment to duty. S. O. 87, A. G. O., April 10, 1879.

The following named medical officers, having been found by an Army Retiring Board incapacitated for active service, have been granted leave of absence until further orders, on account of disability, to take effect April 1, 1879: Surgeon, J. H. FRANTZ; Asst.-Surgeons, W. E. WHITEHEAD, T. F. AZPELL, H. J. PHILLIPS, J. W. BUELL. S. O. 81, A. G. O., April 4, 1879.

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.— Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending April 12, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| Apr. 5, 1879.. | 0 | 1 | 164 | 1 | 16 | 31 | 0 | 0 |
| Apr. 12, 1879. | 0 | 8 | 178 | 1 | 23 | 25 | 3 | 0 |

TRICHINOSIS.—Dr. E. J. Bergen, of Martinville, Somerset County, N. J., reports four case of trichinosis in one family. The infected pork was said to have been thoroughly cooked. Death occurred in the father as the result of the disease four weeks after the commencement of the attack.

AMERICAN MEDICAL ASSOCIATION.—The Thirtieth Annual Session will be held in the city of Atlanta, Georgia, commencing on Tuesday, May 6, 1879, at 11 o'clock A.M. The following are the lists of sections, with their officers—Practice of Medicine, Materia Medica, and Physiology: Dr. Thos. F. Rochester, Buffalo, N. Y., Chairman; Dr. W. C. Glasgow, St. Louis, Mo., Secretary. Committees appointed to report to this section—On Clinical and Meteorological Records: Dr. N. S. Davis, Illinois, Chairman; Effect of Climate in Colorado on Pulmonary Phthisis: Dr. C. Denison, Col., Chairman. Obstetrics and Diseases of Women and Children: Dr. E. S. Lewis, New Orleans, La., Chairman; —— ——, Secretary. Surgery and Anatomy: Dr. Moses Gunn, Chicago, Ill., Chairman; Dr. J. R. Weist, Richmond, Ind., Secretary. Medical Jurisprudence, Chemistry, and Psychology: —— ——, Chairman; Dr. L. M. Eastman, Baltimore, Md., Secretary. State Medicine and Public Hygiene: Dr. John S. Billings, Washington, D. C., Chairman; Dr. J. T. Reeve, Appleton, Wis., Secretary. Ophthalmology, Otology, and Laryngology: Dr. H. Knapp, New York, Chairman; Dr. X. C. Scott, Cleveland, Ohio, Secretary. The following Committees are expected to report—On Prize Essays: Dr. Robert Battey, Rome, Ga., Chairman. On Necrology: Dr. J. M. Toner, Washington, D. C., Chairman. On Catalogue of National Library: Dr. H. C. Wood, Philadelphia, Pa., Chairman. On Recommendations in President Richardson's Address: Dr. T. G. Richardson, New Orleans, La., Chairman. On Ozone: Dr. N. S. Davis, Chicago, Ill., Chairman. On Sanitaria for Consumptives: Dr. H. I. Bowditch, Boston, Mass., Chairman. On Dr. Seguin's paper on the Intervention of Physicians in Education: Dr. R. J. O'Sullivan, N. Y., Chairman.

REDUCED RATES OF FARE FOR DELEGATES TO THE MEETING OF THE AMERICAN MEDICAL ASSOCIATION.— For the accommodation of delegates, their families and friends, the management of the Kennesaw Route (Western and Atlantic Railroad) have arranged to place on sale, the 4th and 5th of May, tickets to Atlanta, Ga., and return, and good until the 20th of May, as follows: Washington, $27 75; Alexandria, $27 50; Charlottesville, $25 85; Richmond, $24 65; Norfolk, $25 00; Petersburg, $24 65; Lynchburg, $23 25. The following schedule is in effect: Leave Washington (Va. Midland R. R.), 7 A.M.; Charlottesville (Va. Midland R. R.), 11.55 A.M.; Norfolk (A., M. and O. R. R.), 6.25 A.M.; Richmond (R. and P.), 7.54 A.M.; Petersburg (A., M. and O.), 9.30 A.M.; Lynchburg (A., M. and O.), 2.55 P.M.; Knoxville, 4.14 A.M.; Dalton, 9.06 A.M. Arrive at Atlanta (following day), 12.55 P.M. Pullman sleepers from Washington to Atlanta on this train without change. Delegates will advise Capt. H. L. Peyton, General Agent, 603 Pennsylvania Avenue, Washington, D. C., who will reserve sleeping-car berths.

The New York and Savannah Steamship lines offer members of the Association the special rate of passage from New York to Atlanta, of $19 50, or excursion tickets at $32. The route consists of the four new iron steamships "Gate City" (Atlanta), "City of Savannah," "City of Columbus," and "City of Macon," built in 1877–78. The sailing days from New York are Wednesdays and Saturdays, at 3 P.M., arriving at Savannah in 60 hours, and thence, via Central R. R. of Georgia, to Atlanta, the running time between the two cities being about 18 hours over a steel-rail track. Parties leaving here by the "Gate City" (the newest vessel of the fleet), on Wednesday, April 30th, arrive at Savannah Saturday morning, leave by evening train at 7.30, and arrive in Atlanta at noon on Sunday, May 4th, thus allowing a day in which to visit Savannah on the journey, and a day in Atlanta before the meeting of the Association on the 6th. Steamers leaving Boston, Philadelphia, and Baltimore also connect with the C. R. R. at Savannah; but we know of no arrangement having been made with them for special rates. Boston travellers usually come via New York. The rates named above include meals and state-room on steamer. The latter, to insure a choice, should be secured two or three days in advance, from Geo. Yonge, Agent, 440 Broadway.

CREMATION is gaining ground in Europe. The Government of Hamburg has decided to introduce it optionally. It has already been introduced in the same way in Gotha.—*Brit. Med. Journ.*

ANEURISM OF CAROTID AND DISTAL LIGATURE.— An aneurism of the common carotid was cured recently by distal ligature, the relation of parts not permitting ligation between the tumor and the heart. The operation was performed at the Hospital Santo Antonio in Oporto.

QUACKERY TWO CENTURIES AGO!—The following note is copied from the Collections of the Maine Historical Society, Vol. 1, Article on the Early Records of York County (Maine), with original extracts: "—1675, July 6. We present Capt. Francis Raynes for presuming to act the part of a midwife; the delinquent examined by the Court, fined fifty shillings for his offence, and paying the fees, five shillings, is discharged."

# Original Communications.

## THE ADIRONDACK REGION AS A THERAPEUTICAL AGENT IN THE TREATMENT OF PULMONARY PHTHISIS.

(Read before the Medical Society of the State of New York.)

By ALFRED L. LOOMIS, M.D.,

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE IN THE MEDICAL DEPARTMENT OF NEW YORK UNIVERSITY, N. Y.

### PART I.

Mr. President and Gentlemen of the State Medical Society:—I invite your attention to the Adirondack region as a therapeutical agent in the treatment of pulmonary phthisis. I have long been convinced that the most important factor in the successful management of pulmonary phthisis is to be found in climate. It seems to me that at the present time no subject of medical study is more deserving of attention than the climatic treatment of disease, yet to a student of the medical literature of to-day there is none more confusing and unsatisfactory. Some localities have been considered especially favorable on account of their equability of temperature, others on account of their luxurious vegetation or their peculiarity of soil; some on account of the dryness, others on account of the humidity of the atmosphere. From the data given, widely differing conclusions have been reached by different observers. In regard to the localities which are claimed to be especially adapted to the treatment of pulmonary phthisis, few writers have carefully observed, for any considerable length of time, the effect of the climate upon individual cases, or, if they have so observed, they have not made public the result of such observations; and on this account very definite conclusions as to the relative merits of the different localities have never been reached.

In the preparation of this paper, my object has been to show the effect of the climate of the Adirondack region upon all the cases of well-developed phthisis, which under my observation have given the region an extended trial. I am largely indebted for facts given, and the history of cases, to my friend Dr. Edward L. Trudeau, who, a phthisical invalid, took up his residence in this region five years ago.

By way of explanation, I would state that clinically and pathologically I recognize three varieties of pulmonary phthisis, viz., catarrhal phthisis, fibrous phthisis, and tubercular phthisis.

In *catarrhal phthisis*, the primary changes are in the cavities of the alveoli and bronchi, and are epithelial and cellular in their nature.

In *fibrous phthisis*, the primary changes occur in the bronchial and alveolar connective-tissue, and are connective tissue hyperplasias.

In *tubercular phthisis*, the primary changes occur in the lymphoid elements of the lung, associated with connective tissue hyperplasias forming little masses or nodules, which ordinarily are termed tubercles. The development of tubercle in a lung may be preceded or accompanied by an alveolar cellular process, or by a connective-tissue hyperplasia, and as the one or the other predominates, so is the duration of the case long or short.

In the later stages of these different varieties of phthisis, it is always difficult and sometimes impossible to distinguish the one from the other; but in the earlier stages, in most cases, the differential diagnosis can readily be made.

The peculiar clinical feature of catarrhal phthisis is, that at the onset the local symptoms are well marked and precede or accompany the constitutional. The local signs may be those of pneumonia or of localized bronchitis of the small tubes, while the peculiar clinical feature of tubercular phthisis is, that at the onset of the disease there are few local signs, while the constitutional disturbance is very marked.

*Fibrous phthisis* is distinguished from all other forms by its greater chronicity. Usually it commences as a chronic affection, coming on very insidiously. Its chief clinical feature is, that its development is preceded by a chronic bronchitis or pleurisy limited to one lung, or perhaps an unresolved pneumonia. In rare instances, it is developed in the course of some constitutional disease—as syphilis, gout, etc.

These three varieties of pulmonary phthisis not only differ in their origin, mode of development, progress and termination, but necessarily they require different plans of treatment, and are differently affected by climate.

To rightly estimate the effect of the climate of any place or region, it is absolutely necessary that we be able to determine what variety of phthisis it is that is cured or arrested in that locality. Frequently, individuals with catarrhal phthisis will do badly at an altitude at which those with fibrous phthisis will be benefited. Besides, in determining the locality in which phthisical developments will be most likely to be arrested, we must take into account the age and general condition of the individual. For instance, an enfeebled and broken down middle-aged phthisical subject does badly in a high mountain region, but is benefited by the air of the sea.

The region known as the Adirondack region is comprised in that portion of our State which lies north of the Mohawk and west of the Champlain Valley. It may be said to include the counties of Clinton, Franklin, Essex, Hamilton, with portions of adjoining counties, and has an area equal in extent to nearly one-third of the State of New York. Within its limits there is a plateau from 1,500 to 2,000 feet above sea level, 150 miles in length (latitude), and 100 miles in breadth (longitude). On this plateau there are more than two thousand square miles of primitive forests, mostly evergreen, and many hundred lakes and ponds. From the surface of this plateau rise granitic mountain peaks more than five thousand feet in height. The drainage of this table-land is toward Lake Champlain on the east, the St. Lawrence River on the northwest, and the Hudson River on the south. Many of the streams which flow in these different directions intercept each other, and some of them, as well as the lakes, are navigable for light canoes or boats. Occasionally, there are easy portages between these bodies of water, and sometimes we meet with rapids or falls. I doubt whether any region in this country furnishes to the invalid or pleasure-seeker, such a stimulus to out-of-door life.

Mr. Verplanck Colvin, in the conclusion to his report, published in 1874, on the Topographical Survey of the Adirondack Wilderness, uses the following words to express his enthusiasm—words which fitly express the enthusiasm of many another one familiar with this region:

"The Adirondack wilderness may be considered the wonder and glory of New York. It is a vast *natural* park, one immense and silent forest, curiously and beautifully broken by the gleaming waters of a myriad of lakes, between which rugged mountain

ranges rise as a sea of granite billows. At the northeast the mountains culminate within an area of some hundreds of square miles; and here savage, treeless peaks, towering above the timber line, crowd one another, and, standing gloomily shoulder to shoulder rear their rocky crests amid the frosty clouds. The wild beasts may look forth from the ledges on the mountain sides over unbroken woodlands stretching beyond the reach of sight—beyond the blue hazy ridges at the horizon. The voyager by canoe beholds lakes in which these mountains and wild forests are reflected like inverted reality; now wondrous in their dark grandeur and solemnity; now glorious in resplendent autumn color of pearly beauty."

These words are the enthusiastic outburst of one who has a more accurate and comprehensive knowledge of the topography of this region, than has any other man.

It is not surprising that in such a region the tired worker and worn-out invalid find the rest and quiet which is so powerful a restorer of health. Here, as I have already intimated, there is every inducement for one to lead an out-of-door life, the very surroundings infuse new life into the feeble body, and one daily grows stronger and stronger and feels better, scarcely able to tell how or why. One condition which I regard of the greatest importance in seeking a suitable home for a phthisical invalid is here met with, viz.: dryness of soil.

Undoubtedly, a damp warm as well as a damp cold climate acts unfavorably upon phthisical invalids, but the peculiar *dampness* which acts most unfavorably is not usually present in those localities where there is the greatest rain-fall, nor is it present because large bodies of water are in close proximity, but it mainly depends upon the nature of the soil. To avoid this dampness, the soil should be porous and sandy, a loose soil of sufficient porosity to permit the rapid filtering of water from its surface, so that after a heavy rain-fall the surface will soon become dry. All clay soil drains slowly and imperfectly, and the peculiar dampness arises which acts so unfavorably on phthisical invalids. Laennec states, that the dampness arising from such a condition of soil is one of the most certain developing causes of phthisis, and he makes mention of a locality having such a soil, in which the dampness was so constant and of such a character that more than two-thirds of the resident population died of phthisis. In determining the fitness of a locality as a residence for phthisical invalids, I have come to regard the external configuration and conformation of the soil as of greater importance than the amount of rain-fall, or the relative moisture.

The climate of the Adirondack region may be considered a moist, cool climate. The rain-fall is above the average for other portions of the State, and may be roughly estimated at 55 inches. The spring is cool and there is considerable rain until about the middle of June. There is a dry period during the summer, when little rain falls, and the days become hot, while almost without an exception the nights are cool, often cold, and heavy dews fall. There is rarely at any time excessive heat, and during the warmest weather there are but few nights even in August when a blanket is not needed. My friend Dr. Trudeau, who has remained here summer and winter for the past five years, makes the following statement: "That he has never found the mercury above 87° during the past six summers, and this high temperature was only maintained for a few hours during the afternoon. The air during the fall months, with the exception of one or two long rain storms, is bracing and admirably suited to out-of-door life. During the winter the cold is almost uninterrupted, no thawing of any consequence taking place before the month of March. There is a preponderance of cloudy days and snow storms. The mercury, during January and February, frequently for days at a time stands many degrees below zero. As the cold weather usually continues until the end of March, the thawing takes place quickly, and owing to the sieve-like nature of the soil the snow disappears very rapidly, consequently the change from winter to spring is soon accomplished.

There is no marked preponderance of clear days at any season; on the contrary, the sky, especially in winter, is constantly overcast. This cool, cloudy weather is a marked feature of this climate. The altitude varies with the different localities; but the immense plateau which forms the lake region of the Adirondacks is about 1,800 feet above sea-level. The soil is very light and sandy, with here and there rocks, but little or no clay.

There appears at first sight but little to induce one to consider this locality as favorable for persons affected with phthisis. Hitherto heat and cold and absence of moisture, or an equable temperature, have been regarded as necessary in order to favorable results in the treatment of phthisis; but it has been shown by trial that neither cold, nor heat, nor moisture, alone, are all-sufficient factors in guiding us to a right understanding of the most favorable atmospheric conditions for phthisical patients. In a written communication to me Dr. T—— also says: "High mountains, the desert, and the open sea have perhaps given so far the best results in the treatment of chronic chest disease; and yet all these differ widely except in one respect, namely, purity of atmosphere. It is neither hot nor cold air, damp nor dry air, but *pure* air which is necessary to diseased lungs. Many conditions render the atmosphere of these mountains perfectly pure. The elevation of this region, its sandy soil, the undulating nature of the country, which ensures perfect drainage; the absence of cultivation, even of dwellings—all these conditions preclude the presence of telluric or miasmatic poison, and we have a purity of atmosphere unknown in more settled districts. The forests of this region are almost unbroken, stretching over the valleys, covering the mountains often to their very summit, and extending in some directions for nearly a hundred miles, while innumerable lakes dot this elevated plateau, and give moisture to the air. That the atmosphere of such a region, especially when set in motion, should, by its contact with myriads of tree-tops and pine sheaves, become heavily laden with ozone is a natural sequence. Whatever other properties this gas may hereafter be found to possess, we know that it is a powerful disinfectant and Nature's choice agent for counteracting atmospheric impurities. This process, which during the summer months is carried on by all varieties of trees, during the winter months is maintained by the evergreens, while the deciduous trees are deprived of their foliage. Pine, balsam, spruce, and hemlock trees abound, and the air is heavily laden with the resinous odors which they exhale. An agent which it is universally admitted exerts a most beneficial influence on diseased mucous membranes is thus brought in contact with the air-passages, while balsamics, which are also disinfectants, purify the atmosphere, which is constantly impregnated with them. Besides this, the air of the wilderness is optically pure, noticeably free from dust or visible particles of any kind. The invalid, therefore, is here surrounded by a zone of pure air, which separates him, as it were,

from the germ-pervaded world, and his diseased lungs are supplied with a specially vitalized and purified atmosphere, free from germs and impurities of any kind, and laden with the resinous exhalations of myriads of evergreens."

Though as yet but few phthisical invalids have been induced to give the Adirondack region an extended trial, the good results obtained by those who have remained there for any considerable length of time are the strongest arguments in its favor. Dr. T—— writes: "My own personal experience and my personal observation of other phthisical invalids lead me to say that any comparison of the relative good effects of the climate of St. Paul, Minn., or of the South, with that of the Adirondack region is decidedly in favor of the latter." In regard to camp life, he writes: "Camping out, which is the peculiar feature of this place, if done in an intelligent manner, from June to October, I consider an important and beneficial measure in the treatment of phthisis; if done carelessly, it is by no means free from risk. The advantages gained by this mode of life are evident. The phthisical invalid for four months, night and day, lives out-of-doors, in a pure atmosphere; he is quiet, has perfect rest, plenty of good food (for which this mode of life gives an amazing relish); he has no opportunity to daily observe the effect upon other phthisical invalids of the disease from which he is suffering; his surroundings are such that he can lie down whenever standing fatigues him, can eat whenever he is hungry, sleep when exhausted, and dress as suits his own comfort—all of which comforts the requirements of society sometimes interfere with.

"All these things—the breathing of the pure air of the wilderness, the perfect rest, the wholesome food, and early hours—combine to make tent-life a powerful weapon in combating this disease.

"Exposure in inclement weather, which this mode of life at times renders almost unavoidable, is well borne in this climate by phthisical invalids who steadily live out of doors. During the past six years I have never seen any evil results from this mode of life; but I have seen men in camp lose their cough and gain in flesh, while it rained daily, and in the midst of occasional frosts and snow-storms."

Dr. Trudeau expresses himself strongly on this point, having faithfully tried tent-life, and he adds: "Many of the risks supposed to attend out-of-door life exist only in the imagination of the timid;" and he believes that tent-life, and a return to the invigorating, out-of-door existence of the savage is Nature's antidote for a disease which is almost an outgrowth of civilization and its enervating influences.

To proceed to results obtained from a fair trial of this region.

Case I.—Eleven years ago, in the summer of 1867, as an invalid, I first visited this region. For several months previous I had suffered from cough with muco-purulent expectoration, loss of flesh and strength, night-sweats, and other rational and physical signs which attend incipient phthisical development. The only survivor of a family, every member of which (save, perhaps, one) had died of phthisis, I had come to regard my case a critical one. A Southern trip had not relieved if it had not aggravated my phthisical symptoms. In this condition I went into this region and into camp, and when, before the summer months had passed, I came out of the Adirondack or north woods, free from cough, with an increase in weight of about twenty pounds, with greater physical vigor than I had known for years, I very naturally became an enthusiast in regard to them.

My personal experience that summer convinced me that there was something in the air of this region especially adapted to diseased lungs; that, if the climate had no direct influence in arresting or preventing phthisical developments, it certainly allayed bronchial irritation, and the phthisical invalid soon became able to spend the greater portion of his time in the open air; still more, his surroundings were such that if a lover of nature or of sport, he necessarily forgot himself, and thus was nature aided, and vigor and health restored.

I would mention here that my personal experience, as well as my experience since that time in regard to its effect upon others, leads me to believe that, during the warm season, a camp or tent life is of the greatest service to pulmonary invalids, if they are not enfeebled.

From time to time, since that summer, eleven years ago, I have sent phthisical invalids into this region. At first I sent them only during the summer months, but I found that while temporary relief was afforded, and in some instances marked improvement took place, in cases of fully developed phthisis the latter was not permanent, and although the winter months might be spent at the South, yet before another summer came around the disease progressed. Not until 1873 was I able to persuade any phthisical invalid to remain during the winter. The effect of the winter climate on this invalid showed so markedly the benefit to be derived from a winter's residence in this region, that from that time, each winter, others have been induced to remain. Fourteen remained last winter.

A brief analysis of the cases which have been under my own personal supervision, or that of Dr. Trudeau, will, I think, enable us to reach some satisfactory conclusions in regard to the therapeutical effects of the climate of the Adirondack region. They are unselected cases, and the only cases of value, as these are the only phthisical invalids who have remained in the region a sufficient length of time to give the climate anything like a fair trial.

Case II.—Dr. E. L. T., aged twenty-five; family history good; began to lose his health in the winter of 1872. His symptoms very rapidly becoming urgent, he was examined by several physicians. Extensive consolidation at left apex was found, extending posteriorly nearly to angle of scapula; on the right side nothing was discovered save slight pleuritic adhesions at the apex.

He was ordered South, but returned in the spring in no way benefited. On the contrary, night-sweating had set in, and his fever was higher. In the latter part of May he started for the Adirondacks, the ride in the stage being accomplished on an improvised bed. His condition at this time was most unpromising; he had daily fever, night-sweats, profuse and purulent expectoration, had lost his appetite, and was obliged constantly to have recourse to stimulants. Weight about 184 pounds. He began to improve at once, his appetite returned, all his symptoms decreased in severity, and after a stay of more than three months he returned to New York, weighing 146 pounds, with only slight morning cough, presenting the appearance of a man in good health. A few days after his arrival in New York he had a chill, all his old symptoms returned, and he was advised to leave for St. Paul, where he spent the entire winter. He did badly there; was sick the greater portion of the winter. In the spring of 1873 he again went to the Adirondacks. At this time he was in a most debilitated state, was anæmic, emaciated, had daily hectic

fever, constant cough and profuse purulent expectoration.

The marked improvement did not commence at once, as it did the previous summer, and the first of September found him in a wretched condition. I then examined him for the first time, and found complete consolidation of the left lung over the scapula and supra-scapula space, with pleuritic thickenings and adhesions over the infra-clavicular space. On coughing, bronchial râles of large and small size were heard over the consolidated portion of the lung. Over the right infra-clavicular region the respiratory murmur was feeble, and on full inspiration pleuritic friction sounds were heard. I advised him to remain at St. Regis Lake during the winter, and although he was repeatedly warned that such a step would prove fatal, he followed my advice.

From that time he began slowly to improve. Since that time he has lived in this region. At the present time his weight is 158 pounds, a gain of 22 pounds since he first went to the Adirondacks in 1873, and 10 pounds more than was his weight in health. He has slight morning cough and expectoration, his pulse is from 72 to 85, and he presents the appearance of a person in good health. In his lungs evidences still remain of the disease he has so many years combated.

Although he has made three attempts to live in New York, at intervals of two years, each time his removal from the mountains has been followed within ten days by a chill, and a return of pneumonic symptoms —symptoms so ominous that he has become convinced that it will be necessary for him to remain in the Adirondack region for some time to come.

Case III.—In the fall of 1873, Mr. E., aged twenty, with decided hereditary tendency to phthisis, went into the lake region of the Adirondacks. He had then been ill about 18 months, had spent two winters in Nassau, and for the three months immediately preceding his arrival, he had failed very rapidly. When he first consulted me in September, 1873, I found him extremely emaciated, weighing 108 pounds, pulse habitually ranging from 110 to 130, morning temperature from 102 to 103. He had loss of appetite, night sweats, and a constant harassing cough with slight hemorrhages. Physical examination revealed a large cavity on the right side posteriorly, with entire consolidation of the right lung. At the left apex there was also a small cavity with fine crackling râles over the upper third of the left lung. His condition remained desperate during the following winter, but, in the spring he somewhat recovered his appetite, he regained strength, and he had long intervals during which he was entirely free from fever. He spent the spring and summer of 1874 in camp, and his improvement was very marked. A physical examination of his chest in the fall of 1874 showed a marked decrease in the pulmonary consolidation on the right side, the cavity had apparently diminished in size, and vesicular murmurs could be heard below and on either side of it. On the left side the crackling sounds had disappeared, and no signs of cavity could longer be detected, but broncho-vesicular breathing was still distinctly heard. His heart was hypertrophied, pulse 88, evening temperature 99¼, weight 116 pounds. For the succeeding eight months he steadily improved. In June, 1875, after an exposure which it would have been unwise for one in health to risk, he was seized with a prolonged chill, which was very severe and was followed by a pulmonary hemorrhage so profuse that for some time he was thought to be dead, but he lingered until morning, and died from pulmonary congestion and œdema.

Although this case terminated fatally, I regarded it as one of arrested phthisis. The beneficial effects of the climate of this lake region were so positive and well marked in this case, that I assumed the responsibility and induced other phthisical invalids to make a trial of it, contrary to the advice of other physicians, and regardless of the expostulations of friends.

Case IV.—Mr. M., aged twenty-seven, with a good family history, after an illness of several months, which was marked by cough, expectoration, and loss of flesh, spent the summer of 1870 at Saranac Lake, where he markedly improved, lost his cough, and gained in weight. After his return to New York in the fall, his cough returned, other physical symptoms developed, and he was quite ill throughout the winter. The next summer he returned to the Adirondacks much worse than he was the previous year. Again he improved, and he thought he was almost well. He went to California for the winter, did badly there, and on his return to New York in the spring, two physicians of large experience pronounced his case a hopeless one—one which would probably terminate fatally within six months. In the early summer of 1872 he reached the Adirondacks in a most pitiable condition. Both lungs were extensively diseased. At the apex of the left lung were the physical signs of extensive consolidation and softening. The upper third of the right lung was consolidated, and was the seat of large and small mucous râles. He had hectic fever, extreme dyspnœa, a rapid pulse, and other symptoms of advanced phthisis. He soon began to gain flesh and strength, his appetite improved, he coughed less, his expectoration was diminished in quantity, and by early fall he was able to keep out of doors the greater portion of the time. For five years he remained in the lake region. At times his condition was most promising, although little change took place in the physical signs. Last spring, tired of the seclusion, he returned to his home in New York.

Unquestionably this was a case of catarrhal phthisis, and the results obtained from his first summer's residence in the Adirondack region lead me to believe that if Mr. M. had remained in the region the winter succeeding this first summer, he would have reached complete recovery. Even after reaching an advanced stage of the disease, when there was no longer a possibility of recovery, a condition of stasis was reached when he permanently resided in the region.

Case V.—Mrs. L——, aged forty, good family history; early in the summer of 1871 went to the Adirondacks. She had been ill eight months with a cough and other phthisical symptoms. At the time of her arrival she was in a state of extreme exhaustion; for several weeks previous she had lived entirely upon beef-tea and champagne. She had a harassing cough, with profuse expectoration and hectic fever. Physical examination revealed a moderate amount of consolidation at the apex of the right lung, with crackling râles of large and small size; no evidence of softening. At once her desire for food returned, and she began to gain flesh and strength; gradually her cough and expectoration diminished, and late in the fall she returned to her home markedly improved. Since that time she has spent some time every summer or fall in this region, and for the last three years none of the rational or physical signs of phthisis have been present.

In this case the rapidity and completeness of the recovery was quite surprising, when we consider how unpromising was the condition of the patient at the time when she first reached the Adirondacks.

Case VI.—Mr. R——, aged thirty, with no heredi-

tary tendency to any disease, first consulted me in the spring of 1875. He had been ill six months with cough, expectoration, hectic fever, gradual emaciation, and other well-marked phthisical symptoms. Physical examination of chest revealed consolidation at the apex of the right lung, with sharp crackling râles, most abundant posteriorly, where distinct bronchial breathing could be heard below the spine of the scapula; left lung healthy. I advised him to take up his residence in the Adirondacks. He remained in camp in the lake region during the summer of 1875, with only a slight increase in weight, a slight improvement in strength, and no change in cough or physical signs. During the fall and winter he had several hemorrhages, with fever, and was confined to his bed at different times. Early the next spring he went into camp, and remained until September. When he came out of camp he weighed 181 pounds, had gained forty pounds; he had no cough, no expectoration, no fever. An examination of his chest revealed no abnormal sound, except pleuritic creaking and feeble respiratory murmur posteriorly over the former seat of the pulmonary consolidation. I regarded him a well man, and permitted him to return to his home. He remained well until the following spring, when he had an attack of acute cystitis. He was confined to his bed for six weeks; as soon as he was able to travel he returned to the Adirondacks, but the cystitis became chronic, was complicated by pyelitis and nephritis, and in early winter he died from acute uræmia.

At the time Mr. R. took up his residence in the Adirondacks his digestive and assimilating processes were in a feeble condition. Undoubtedly this accounted for the fact that for nearly a year there was little, if any, improvement in his lung disease. His five months' camp life during the second year of his residence in the Adirondacks not only cured his diseased lung, but wrought an entire change in his physical condition. So great was the change that one would scarcely recognize him. When he left the woods the following fall no evidence of lung disease could be detected, nor was any detected during the remainder of his life.

(To be continued.)

## DEFORMITY OF THE NOSE,

### Occasioned by the Kick of a Horse.—Relieved by a Rhinoplastic Operation.

By ALFRED C. POST, M.D., LL.D.,

Visiting Surgeon to the Presbyterian Hospital in the City of New York.

(Read before the Medical Society of the State of New York, February 5, 1879.)

Edgar Margison, æt. 18, admitted to the Presbyterian Hospital June 8, 1878. About ten years ago he received a kick from a horse on the lower part of the nose, fracturing the nasal bones, and displacing the nasal pyramid. The nasal fossæ have been contracted since the injury, so that with the slightest cold he cannot breathe through the nose.

The state of the deformity at the time of his admission is well represented by the accompanying photograph (Fig. 1). The bridge of the nose is depressed, and the apex is turned up so as to expose the anterior nares in a front view.

On the 11th of June I performed the following operation: The patient being etherized, I made a transverse incision through the nasal pyramid, about three-quarters of an inch above its lower margin. The ends of the incision, as they approached the cheeks, were turned downward along the sulci connecting the alæ nasi with the cheeks. The cartilaginous septum was also divided freely, so as to allow the lower part of the nose to be depressed a little below its normal level. After the divided vessels had been secured, the chasm between the two portions of the

Fig. 1.

nose was measured by a piece of oil-silk, which was reversed upon the forehead, and which served as a pattern for a flap of integument which was dissected from the frontal region, and which was a little larger than the space which it was designed to fill. The flap, which was left adherent by a neck over the nasal bones, was turned on its axis and brought down so as to fill the chasm between the upper and lower portions of the nose, and attached by numerous fine sutures to the margins of the chasm. To prevent the flattening of the new portion of the nose the two sides of the flap were perforated by needles armed with silver wires, and the two ends of the wires were then passed through beads and secured by the method devised by the late Dr. Buck, so as to maintain lateral pressure.

The surface on the forehead, from which the flap had been taken, was dressed with lint saturated with collodion.

13th.—The beads having become imbedded in the integument, the wires were loosened. The flap is in a good condition. There is some conjunctival inflammation. A solution of sulphate of zinc, gr. ij. to ʒ j., was ordered as a collyrium.

16th.—The conjunctival inflammation is subsiding. Removed a portion of the sutures.

17th.—Removed the remaining sutures.

25th.—The union of the flap with the surrounding parts being perfectly consolidated I performed the following operation: The patient being etherized, I divided and unfolded the neck of the flap, and inserted it in a bed which had been made for its reception by the excision of granulations, and of the skin at the margin of the space from which the flap had been taken. The neck of the flap was inserted in a position the reverse of that which it had occupied before the original operation, and secured in that position by sutures. A long pin was passed through the integument at the right side of the wound from which the flap had been taken, passing through the flap at two points, and coming out through the integument

on the left side of the wound; this was secured in the usual way with cotton yarn. The course of the pin was near the upper extremity of the reversed neck of the flap.

30th.—The patient is doing well. The neck of the flap is uniting in its new position.

July 6th.—Since the first of the month, the wound on the forehead has been dressed with adhesive strips every other day, firm pressure being made to keep down the granulations. One of the bead sutures was removed to-day.

8th.—Removed the other bead suture. The wound on the forehead is cicatrizing.

12th.—The patient was allowed to go to his country home, to return next month for further treatment.

August 15th.—Patient was re-admitted to-day. The wound on the forehead is healed. There is a superfluity of skin and subcutaneous tissue at the upper end of the nasal pyramid.

17th.—I performed the following operation: I removed a longitudinal strip of integument, about a quarter of an inch wide, and an inch and a half long. I also dissected out a considerable portion of cellular tissue beneath the neck of the flap to reduce the thickness of the bridge of the nose. And as the apex of the nose was too much depressed on the right side, I removed a wedge-shaped piece of skin from the lower extremity of the transplanted flap on that side. The edges of both wounds were brought together by numerous fine silken sutures.

18th.—No rise of temperature. No inflammation.

20th.—The sutures were removed, and perfect union was found to have taken place. The patient was discharged at his own request.

October 3d.—The patient returned to the hospital, and I performed another operation, which was designed, 1st, to remove an undue fulness of the bridge of the nose, which still remained, in a minor degree, after the last operation; 2d, to elevate the apex of the nose, which was still a little too much depressed.

FIG. 2.

To accomplish these objects I excised an elongated elliptical strip of integument over the bridge of the nose, including the cicatrix which resulted from the last operation, together with an additional portion of subcutaneous tissue. I also made a horizontal incision across the nose, immediately above the line of incision made at the first operation for the separation of the apex from the parts above. Above this incision a triangular flap was excised on each side, the apices of the triangles looking toward the cheeks, and the bases toward the median line. The base of each triangle was about half an inch in length. The two lateral portions of the nose were approximated by a bead-suture, three-fifths of an inch on either side of the median line. The edges of the vertical and horizontal incisions were brought together by a number of fine silk sutures.

6th.—Some of the sutures were removed to-day.

9th.—The remaining sutures were removed The wounds have united by the first intention. The form of the nose is nearly perfect. The patient returned to his country home, still wearing the bead-suture.

November 1st.—The patient returned to the city, and I removed the bead-suture. The accompanying photograph was then taken, exhibiting the final result of the series of operations to which he had been subjected, Fig. 2.

## REMARKS ON A CASE OF NEURITIS, WITH SECONDARY INFLAMMATION IN THE SPINAL CORD.

By L. PUTZEL, M.D.,

PHYSICIAN TO CLINIC FOR NERVOUS DISEASES, BELLEVUE OUT-DOOR DEPT., NEW YORK.

I HAVE presented the history of the following case in order to lend additional clinical support to the doctrine of neuritis ascendens—a doctrine which has never rested on a very solid foundation, and which has, of late, been seriously attacked by experimental pathologists. The case is also interesting from a purely clinical standpoint, in order to illustrate the serious results which may follow apparently trifling lesions of the peripheral nerves.

The patient's name is Wm. W., æt. thirty-five years; family history unimportant; married, and has healthy children; he has never had syphilis or other venereal disease; his habits have always been good. Patient was in robust health until the war of the rebellion, when he enlisted as a soldier, and contracted dysentery during his term of service. Since his discharge from the army he has had a return of the dysenteric attacks at intervals of a few months. During the early period of my observation, the patient had from three to six watery passages per day.

He first came under my notice at the class for nervous diseases of the Bellevue Out-Door Dept., on Dec. 13, 1877. The patient was anæmic and somewhat emaciated; complained of slight cough and expectoration in the morning; physical exploration of chest not made at that time. A year ago patient received an injury to the right elbow, resulting in the formation of a boil over the olecranon process; this healed kindly in two or three weeks, leaving no apparent traces. About five weeks ago the patient again suffered from a boil, situated in the same locality as the previous one, and coming on without any apparent provocation. The swelling occupied the entire posterior part of the elbow. A month later (nearly two weeks ago), and before the boil had healed, the patient noticed a feeling of numbness appearing on the anterior and posterior surfaces of the forearm. This gradually spread downwards, involving the anterior and posterior aspects of the little finger and the ulnar border of the ring finger; these fingers became paretic, *pari passu* with the anæsthesia. The anæsthetic integument soon began to grow dusky red, became somewhat thickened, and small, whitish scales devel-

oped over its surface. Slight pain and tenderness now appeared in the fold of the elbow and along the course of the ulnar nerve in the forearm. Soon after the patient came under my care, the tenderness spread upward in the arm, along the course of the ulnar nerve into the axillary region, and was even present along the course of the brachial plexus in the neck. Patient was treated by hot douches, actual cautery along the affected nerves, and the descending constant current, as topical remedies; the internal medication consisted of iodide of potassium, fifteen grains three times a day, and thirty drops of the fluid extract of ergot three times a day. In the course of two weeks the pain and tenderness along the nerve trunks had almost entirely disappeared; the skin of the affected region was still insensible to the prick of a pin, but the patient appreciated a less intense faradic current than formerly. The interossei muscles are now becoming paretic; the flexors of the little and ring fingers are apparently somewhat stronger than formerly. Treatment was now restricted to the use of galvanism and the iodide of potassium. The patient remained *in statu quo* until February 10, 1878, when the following notes were taken: general appearance poor; heart sounds normal; signs of incipient phthisis at the apex of right lung; good deal of cough and expectoration; patient suffers from profuse night sweats. Upon examination of the arm, attention is attracted by the dusky redness of the skin in regions which accurately represent the distribution of the internal and external cutaneous nerves and the cutaneous branch of the musculo-spiral. The patient is unable to feel the prick of a pin even when it draws blood; does not feel constant current of thirty-two Stoehrer's cells; feels quite readily a secondary faradic current of moderate intensity. No tenderness on pressure along any of nerve trunks. Right hand forces dynamometer to 46, left hand to 180°. On inspection, it is found that the adductor pollicis can barely adduct the thumb, and the dorsal interossei are considerably atrophied. On asking the patient to move his fingers, it is found that the palmar interossei and the three inner lumbricales do not act as vigorously as in the left hand, and it is reasonable to suppose that they are atrophied. The motor nerve affected in the forearm is, therefore, the ulnar. In the arm, the ulnar nerve can be traced from the groove between the internal condyle and the olecranon process upward into the axilla as a thick, indurated cord, but is not, however, sensitive to pressure at the present time; the tenderness along the brachial plexus has also disappeared. A red patch is visible on the side of the neck and the tip of ear. This region, corresponding to the auricularis magnus nerve, feels numb, and on testing it with the æsthesiometer, it is evidently markedly anæsthetic. The two points of the æsthesiometer are only distinguished apart at thirty mm., and on the corresponding portion of the left side at fifteen mm. Immediately below the inferior angle of the right scapula is a spot nearly as large as a silver dollar, at which the skin presents the same appearances as in the neck and arm; this region is also anæsthetic, and two points cannot be distinguished apart over this spot. To-day the patient informs me, for the first time, of his dysenteric affection. Ordered subnitrate of bismuth, gr. xxx., t. i. d., which, in a few days, reduced the number of passages to two or three per diem, and rendered them healthy in appearance; atropia was ordered for the night sweats, with excellent results. The iodide of potassium was continued in the same doses as before, and the constant descending current was passed down the cervical spine, and along the course of the brachial plexus and of the nerves of the arm and forearm, every other day.

April 2, 1878, general health greatly improved; coughs very little; no night sweats; has one to two healthy passages from the bowels daily. The patient is now able to adduct the thumb to the base of the ring finger, and can abduct and adduct all the fingers except the ring finger. The eruption on the forearm has faded a great deal, especially toward its centre. Sensation has improved very little; pain is absent, except in the little finger and the ulnar side of the ring finger (hot, smarting pain). The anæsthesia of the reddened patch on the side of the neck is, perhaps, a little less marked than at the date of the last note, and the eruption is somewhat paler. The patient informs me to-day that he has noticed, since the beginning of the week, a numb, red spot on the middle of the thigh anteriorly, and about six inches below Poupart's ligament. This patch of eruption, which is as large as a silver dollar, and paler in the centre than at the periphery, is markedly anæsthetic. A similar spot, as large as a silver dime, is found over the left deltoid. The sexual appetite, which had been diminished, is now improving. The patient continued to improve very slowly until the winter of 1878, when he returned to work as a night watchman, and passed out of my observation.

This case has important bearings upon the question of neuritis ascendens and neuritis migrans. During the last twenty-five years there has been a strong tendency among neurologists to entirely discard the old doctrine of reflex paralyses; but there is no doubt that in a few cases the theory of reflex inhibitory action is alone sufficient to account for the paralysis produced. Thus, Landry reports a case of paralysis, associated with anteversion of the uterus, which disappeared immediately after the organ was replaced in its proper position. M. Rosenthal observed the disappearance of a suddenly developed paraparesis after the extraction of a needle which had been introduced into the vagina. Madge reports a case of paralysis developing during pregnancy which disappeared after the delivery of a dead fœtus of four months.

These observations correspond with the experiments of Lewisson, who produced paraplegia in animals by compression of the kidneys.

But this theory will evidently not suffice to explain all cases of this nature. In many instances post-mortem examination revealed the presence of inflammatory processes in the spinal cord or its meninges, in cases which had been regarded during life as examples of reflex paralysis from bladder or uterine disease, etc. The older cases of this character were deficient in microscopical examination of the medullary tissue, and must therefore be discarded. In order to explain the cases included in this category in which anatomical lesions were found in the spinal cord, resort was had to the theory of neuritis migrans, and this doctrine has been favorably entertained by the majority of living pathologists. In addition to the clinical aspects of the question, physiological experiments were also adduced to substantiate it. Thus, Tiesler, Klemm, Feinberg, and Niedick made numerous experiments upon animals by producing irritation of the sciatic nerve in some portion of its course, either by injecting a foreign matter into its substance, or by cauterizing it with nitrate of silver or caustic potassa. With the exception of Feinberg, these observers announced as the results of their investigations that the irritation of the nerve in the manner referred to produces neuritis at the irritated spot, and that, furthermore, evidences of inflammation ap-

pear in the course of the nerves, although the nerve-tissue may be perfectly healthy between two inflammatory foci. In addition, scattered foyers of myelitis were found disseminated throughout the cord. None of these experimenters, however, resorted to microscopical examination of the tissues, nor did they compare the appearances presented with those found in healthy animals. Feinberg found, as the result of his investigations, that neuritis was produced at that portion of the nerve which had been irritated, but that the more central parts of the nerve were intact. He, nevertheless, obtained evidences of myelitis in the cord. Feinberg is inclined to regard this myelitic process as produced by reflex irritation of vaso-motor nerves (contraction and secondary dilatation of the medullary vessels).

In December, 1877, Ottomar Rosenbach published an article in Kleb's Archiv f. exp. Path. u. Pharmak., in which he arrived at entirely opposite results from those of the observers previously mentioned. Dr. Rosenbach made a series of very careful experiments upon the sciatic and pneumogastric nerves in rabbits, and, although he could develop a perineuritis of the nerve at the irritated point, in not a single instance was he able to discover any evidences of neuritis migrans or of consecutive myelitis. All his experiments were accompanied by careful microscopical examinations—a precaution which had been omitted in the above-mentioned researches. Rosenbach also calls attention to the fact that no controlling observations were made upon healthy animals by either Klemm, Tiesler, Feinberg, or Niedick, and that many of the appearances which the latter regarded as pathological were, in fact, perfectly normal.

Whether or not these experiments of Rosenbach disprove the production of neuritis migrans in rabbits, we shall not discuss now. We are, however, justified in the assertion that its existence has not been experimentally established, and that other and more careful experiments are necessary to settle this vexed question.

We must therefore rely for a solution of the problem upon pathological and clinical data.

Kussmaul reported a case in which he observed atheromatous degeneration of the arteries in the pelvis, with partial fatty degeneration of both sciatic nerves.

Leyden reports two cases in his Kl. f. Rueckenmarksk., in both of which the paralyses were secondary to disease of the bladder, and in which the autopsy showed the existence of widespread myelitic softening. The myelitis started from that part of the cord in which the nerves supplying the bladder originate, and we are therefore naturally led to suppose that the inflammatory process passed upward from the bladder, and along the nerves, until it reached the cord. But Leyden himself remarks that there is no positive proof in support of this hypothesis. I have been unable to discover any other analogous cases of equal importance in a somewhat cursory survey of the medical literature which has appeared since the publication of Leyden's work.

The case which forms the subject of this paper appears to me to fill an hiatus in this direction. The primary affection was evidently a neuritis of the internal cutaneous, external cutaneous, and ulnar nerves, caused by an extension of inflammation from the boil situated on the elbow. The fact that the boil was primarily seated over the olecranon process, and from thence spread internally and externally, is a sufficient anatomical explanation of the fact that the three nerves in question were implicated to the exclusion of the other nerves situated in the fold of the elbow. At a later period pain and tenderness became evident along the course of the ulnar nerve in the arm, and the nerve could be traced as a thickened, indurated cord from the back of the inner condyle, along the inner side of the arm, into the axillary space. These phenomena undoubtedly indicated extension of the inflammation along the ulnar nerve. At a still later period tenderness became evident along the course of the brachial plexus in the neck, indicating the further extension of the neuritis along the nerve-trunk. The next nerve to become involved was the auricularis magnus, as was evidenced by the appearance of anæsthesia and of the trophic eruption, referred to previously, in its distribution to the lobe of the ear and to the side of the neck. Now, the ulnar nerve which had been previously implicated arises from the 8th cervical and 1st dorsal nerves, while the auricularis magnus arises from the 2d or 3d cervical nerve. If we acknowledge that the implication of the auricularis magnus was secondary to that of the ulnar nerve (and no other explanation is open to us), we are forced to conclude that the affection of the former nerve was caused by some inflammatory process in the spinal cord. This idea is still further strengthened by the subsequent appearance of similar spots of anæsthesia and eruption in other portions of the body (deltoid, scapula, thigh). What the nature of this medullary lesion was we are unable to state. It may have been a disseminated chronic myelitis, or the inflammation may have been limited to the meninges. The spinal symptoms were so slight, that it would be rash to venture a differential diagnosis between these two conditions.

In conclusion, it appears to us that this case demonstrates, from a clinical standpoint (and with almost as much positiveness as a successful physiological experiment), that ascending neuritis is capable of developing secondary inflammatory changes in the cord, by means of a simple extension of the neuritic process *per continuitatem*.

252 E. 48TH ST.

## OSTEOTOMY FOR THE CORRECTION OF RACHITIC DEFORMITIES OF THE LEGS.

BY CHARLES T. POORE, M.D.,

SURGEON TO ST. MARY'S FREE HOSPITAL FOR CHILDREN, AND TO CHARITY HOSPITAL, NEW YORK.

IN the MEDICAL RECORD for September 7, 1878, I published three cases of osteotomy for the correction of rachitic deformities. The three following cases are in illustration of the same operation.

CASE IV.—Henry H., aged five years, was admitted into St. Mary's Hospital Oct. 1, 1878. He had enlarged epiphyses at the wrist, and excurvation of both tibiæ.

Oct. 5.—Patient was etherized and osteotomy was done on both limbs. The fibula was divided first, and then the tibia; counter-openings were made on the inner aspect of the legs, and carbolized horsehair passed. The limbs were put up in a straight position.

Oct. 6.—Dressings removed. There was no swelling or redness about the wound. Horsehair removed and new dressings applied.

Oct. 14.—Dressing removed; wounds all closed; limbs put up in plaster-of-Paris. The temperature since the operation has not been above 99°.

Nov. 7.—Plaster-of-Paris removed; limbs straight.

Feb. 8, 1879.—Patient discharged.

Case V.—John C., aged two and a half years, was admitted into St. Mary's Hospital Oct. 4, 1878. He has enlarged epiphysis and bow-legs to a marked degree.

Oct. 12.—Osteotomy was done on both legs in the same manner as in case No. IV. The bones were *very hard* and section was made slowly on this account. Counter-openings made and horsehair passed through. Limbs put up in a straight position. Sol. morph., sulph. mag., ℥ iv.

Oct. 13.—Dressings removed. Horsehair taken out; new dressings applied.

Oct. 21.—On removing the dressings to-day the wounds in the right leg were all closed, and the limb was put up in plaster-of-Paris. There was some suppuration from the tibial wound of the left leg. Dressings reapplied.

Oct. 24.—Left leg put up in plaster-of-Paris.

Nov. 7.—All splint removed; union firm; limbs straight. Patient was kept in the hospital until he could walk well, and was discharged cured Dec. 10th.

Case VI.—Thomas C., three years of age, was admitted into St. Mary's Hospital Oct. 24, 1878, suffering from bow-legs. He shows the results of rickets in various parts of his body. Figure 1 is from a photograph taken at the time of admission.

Fig. 1.

Nov. 11.—Patient etherized, and osteotomy done on both legs, the fibula being first divided and then the tibia. There was considerable hemorrhage from left leg; counter-openings made and horsehair passed through; limbs put up in a straight position.

There was some slight suppuration from both legs. They were put up in plaster-of-Paris on the 16th. On the 29th, as the limbs were not as straight as they should be on account of the plaster splint getting loose, the tibiæ were forcibly straightened and the plaster reapplied.

Dec. 28.—All splints removed and patient allowed to go about.

Jan. 3.—Patient was discharged. Figure 2 was taken just before he went home.

It is worthy of notice that in case No. IV. the bones were *very hard*, more so than in any of the cases that I have operated upon, although it was the youngest patient, and is an illustration of the fact that the bones in some cases may become sclerosed at

Fig. 2.

a comparatively early age. I do not think that mechanical appliance could have had any influence in straightening these limbs. I have lately seen one of the patients operated upon in May last. He walks well, without any awkward gait, and there has been no change in the legs.

In cases IV. and V., there was, during the latter part of the second and the beginning of the third week, an elevation of temperature which I cannot account for. I do not think that it had any thing to do with the operation, as the wounds all did well. The suppuration in case V. was too slight to have been an element in its causation.

Those cases where the curve is acute and near the ankle are more difficult to correct than where the curvature is long, and although the great toe may be on a line with the inner border of the patella, yet there is apt to remain a bend, due in some cases, I think, to the enlargement of the inner malleolus.

It should be added that all these operations were done, and the wounds treated antiseptically. Section in all these cases was made with a chisel.

"Aloëopothy."—The following was received by a medical director of a life insurance company from an Eclectic in Missouri:

"Dear Sir, in reply to within I will State that I am the only physician in this town. I presume that I am not what you term 'Regular School' as I am a graduate of the Eclectic School and not an '*Aloepoth.*' There are only two other graduates in the county, and they are Eclectics. The 'Regulars' or Aloepoths have played out in this country!"

## INCONTINENCE OF URINE OF EIGHT YEARS' DURATION RELIEVED BY CIRCUMCISION.

By C. E. NICHOLS, M.D.,

PHYSICIAN TO TROY HOSPITAL, N. Y.

The following case illustrates the prompt relief that can often be afforded in cases of reflex disorders by removing the peripheral source of irritation, even though the duration be sufficient to lead us to expect some continuation from *habit*.

M. L., male, æt. 15 years, had suffered from incontinence of urine for eight years. During that period he had not voided his urine once in a normal manner, but was subjected to a constant urinous dribbling from the penis day and night. At times he suffered severely from pain in the penis and hypogastric region, which was attributed to some vesical disorder. In the autumn of 1877 he entered Troy Hospital as a surgical patient, but left after remaining a few weeks, having been subjected to no treatment.

He was readmitted in October, 1878, and was repeatedly examined for stone in the bladder or other vesical disease, but with negative results.

My attention was called to him in February, 1879, during which month I was on service at the hospital, and I was requested to examine him with a view to the relief of his distressing condition. From the constant stillicidium of the urine his clothes were wet and offensive, no measures having been found practical to collect the urine in a suitable reservoir. He was still subject to frequent and very severe paroxysms of pain in the penis and hypogastric region, and, taken all in all, he was a disgusting and pitiable object. I found that he possessed an unusually long and somewhat thickened prepuce; that the orifice was small, and the glans penis, as felt through the foreskin, was exceedingly sensitive. The pain and nervous excitement resulting from the gentle manipulation of the glans penis during my examination led me to conclude that the probable cause of the trouble lay in the phymosis. To complete the diagnosis, however, I placed him under the influence of chloroform, and having satisfied myself that no condition existed in the pelvic organs to which the symptoms could be properly attributed, I availed myself of the condition of insensibility, and performed circumcision, removing a liberal portion of the prepuce.

The effect was very marked, and though the exposure of the inflamed and exceedingly sensitive glans was a source of suffering, yet immediately after the operation he was able to retain his urine for a period of two to three hours for the first time in eight years. The bladder rapidly improved in tolerance, and he progressed favorably in every way; but, owing to disorderly conduct and his indifference to cleanliness, which resulted from his eight years' experience, he was discharged from the hospital March 18th.

He called on me a day or two previous to the writing of this (April 9, 1879), and reported himself as *free* from any trouble or inconvenience in connection with the urinary organs, while at the same time he had acquired a proper sense of his duty in regard to the cleanly care of his person.

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"The Doctor Woman," by Aiken Heart, M.D.—This is a clever little poem founded on the electrifying sensations experienced during direct auscultation by a lovely medical woman. The book is neatly printed and appropriately illustrated.

# Reports of Hospitals.

## BELLEVUE HOSPITAL.

### Reports of Practice and Peculiarities of Treatment.

#### LEAD-COLIC—CROTON OIL AND OPIUM.

A male patient, a worker in a paint manufactory, suffered from pain about the umbilicus, the usual region for the pain of lead-colic, and had a well-marked blue line along the edge of the gums. The prescription was the following: Croton oil in half-drop doses, combined with opium sufficient to relieve the pain, and repeated every three or four hours until free evacuation of the bowels was produced.

#### PULMONARY EMPHYSEMA—AUTUMNAL ATTACKS OF SPASMODIC ASTHMA.

A female patient, forty-eight years of age, and the mother of seventeen children, suffered from autumnal attacks of spasmodic asthma. She stated that when the cold weather appeared she recovered without the aid of medicine. Associated with it were the physical signs of emphysema. The attacks of coughing were accompanied by a pearly pellet-like expectoration. One interesting feature in the case was the absence of hereditary history. For this class of cases, in addition to a general tonic plan of treatment, the following was recommended:

| | |
|---|---|
| ℞. Potass iodid..... | ʒ ij. |
| Hoffman's anodyne..... | ♏ ss. |
| Syr. prun. Virginiana..... | ʒ iv. |

M. et S. teaspoonful four times a day.

#### CHOREA.

The case was interesting because of the degree of the disease and the age of the patient.

A male patient, æt. forty-eight years, and a carpenter by trade, suffered from chills and fever for one year. At the end of that time, four years ago, he began to have choreic movements in the lower extremities, which caused him to walk like a drunken man. Not long after, the entire body was affected, and the movements had continued without interruption up to the time he was admitted to the hospital.

When admitted to the hospital his jerkings were so severe that it was necessary to confine him to the bed by means of straps.

His intellect was clear, but his power of expression was very much disturbed.

He was receiving gr. lx. of bromide of potassium, night and morning, and while taking the remedy the severity of the movements was considerably reduced.

#### ACUTE ARTICULAR RHEUMATISM — EXCEPTION WITH REFERENCE TO THE TIME OF THE OCCURRENCE OF THE PRIMARY ATTACK.

A male patient, æt. fifty years, was suffering from his second attack of acute articular rheumatism. The first attack occurred when he was forty-seven years of age, and in that particular the case was chiefly interesting, primary attacks of the disease being very unfrequent after the age of forty has been reached. His symptoms yielded quite promptly to the use of tablespoonful doses of a saturated solution of bicarbonate of soda, with twenty grains of salicylic acid, every three hours.

SPINAL ABSCESS—TREATMENT BY INJECTIONS OF CARBOLIC ACID.

A male patient, æt. twenty-six, had upon the upper portion of the thigh a large abscess, which was supposed to have its origin in caries of some of the lumbar vertebræ.

The points of interest in the case were that it was a spinal abscess, which originated in the lumbar region, and terminated in two long sinuous tracts, one extending down upon the right side, passing under Poupart's ligament, and then spreading out and forming a large abscess, which had opened in the femoral region; the other running down upon the left side, and opening over the anterior superior spinous process of the ilium.

The plan of treatment proposed was—*first*, to establish an opening near the point at which the pus emerged from beneath Poupart's ligament; *second*, to empty the abscess upon the thigh below, wash its cavity thoroughly with carbolized water, and bring its walls in contact by means of a bandage; *third*, to introduce a soft catheter, carrying it up until the bodies of the vertebræ were reached, cleansing the entire surface of the sinuous tract by injections of carbolized water, and bringing the disinfectant solution in contact with the carious bone. The surgeon did not expect to prevent air from entering the wound and the sinus, but the operation was done under Lister's method, for the purpose of disinfecting the air which might enter.

PNEUMONIA AT THE APEX — THREE CASES — SPONTANEOUS RECOVERY IN TWO CASES.

Three cases of pneumonia which were interesting for study were seen.

CASE I.—*Pneumonic Fever, pursuing a short course, and ending by crisis without active interference in the way of treatment.*—Its history was as follows: A male patient, æt. 17, a farm laborer, was admitted to the hospital, January 10, 1879. Family history negative, and habits good. During the last two months he had had cough with moderate amount of expectoration. On the evening of January 9th, he began to feel unwell, and had a chill. During the week previous to the chill the patient was in his usual health. On the following morning he had moderate pain in the right side, increased by respiratory movement. Headache and vomiting were absent, and there was no marked debility. There were no positive signs of consolidation at the time of admission, but the respiratory movement was nearly suppressed over the lower lobes, as the result of the pain. The face was flushed and the tongue coated with a heavy white fur. The urine was acid, had a specific gravity of 1024, and did not contain albumen. The pulse was 126, the respiration 36, and the temperature in the morning, 103¾° F.; in the evening, 103¾° F.

Jan. 11.—Morning: pulse 120; respiration 30; temperature 103¼° F. Noon: pulse 120; respiration 36; temperature 104¼° F. 5 P.M.: pulse 96; respiration 40; and at 6.30 P.M. the temperature was 104½° F. At that time indistinct bronchial respiration was detected at the apex of the right lung. The patient received four pints of milk and two eggs in twenty-four hours. No medicinal treatment.

Jan. 12.—Morning temperature was 104¼° F. At 1 P.M. the temperature was 105° F., and at 6 P.M. it was the same. The physical signs remained unchanged. There was no characteristic pneumonic sputa.

Jan. 13.—At 5 A.M. the pulse was 120; the respiration 32; and the temperature 103¼° F. At 1 P.M. the temperature was 104° F. At 5 P.M. the pulse was 100; the respiration 40; and at 6 P.M. the temperature was 103° F. The physical signs remained the same.

Jan. 14.—Morning: the pulse was 100; the respiration 50; and the temperature 103½° F. At 1 P.M. the temperature was 104° F.; at 5 P.M. the pulse was 100; the respiration 54; and at 6 P.M. the temperature was 104° F. Bronchial breathing at the apex of the right lung. Sputa copious, transparent, and viscid. No medicinal treatment.

Jan. 15.—Seventh day from the chill. Morning: pulse 62; respiration 24; and temperature 99° F. At 6 P.M. the pulse was 64; the respiration 28; and the temperature 99½° F. The physical signs remained unchanged, notwithstanding the marked change in the general condition of the patient, and the case was regarded as a typical illustration of the view that this disease is not a local disease, but a fever with pneumonic manifestations.

Jan. 16.—Morning: the pulse was 66; the respiration 34; and the temperature 98½° F. At 6 P.M. the pulse was 52; the respiration 36; and the temperature 98½° F. The case then illustrated the fact that sometimes the pulse falls below the average at the time of convalescence from pneumonia. On physical examination there was found a slight crepitant râle (redux) over the affected portion of the lung; the entire lobe was not solidified.

CASE II.—*Pneumonia at the apex of right lung.—Treatment.—Recovery.*

A female patient, æt. 40, was admitted to the hospital on January 6, 1879. Family history unimportant. Had always enjoyed good health, and had not had any pulmonary affection until the present.

On January 2d, at about 3 P.M., she was suddenly seized with a chill, and at the same time vomited. A few hours later she had pain in the right side, most intense near the nipple, and extending towards the shoulder.

On January 3d, she had epistaxis, which appeared to be caused by violent coughing. The sputa was small in quantity, viscid and uncolored. Pain in various parts of the body.

On the day of admission she was suffering from headache, anorexia, troublesome cough, and some diarrhœa. Pulse 120; respiration 40; temperature 104½° F., and face flushed. Characteristic rusty-colored expectoration was present, and there were signs of solidification over the upper lobe of the right lung. The urine was acid, had a specific gravity of 1018, a slight trace of albumen, and an abundance of large granular casts.

Jan. 8.—Morning: pulse 124; respiration 38; and temperature 104° F. At 1 P.M. the pulse was 114; the respiration 35; and the temperature 104° F.

She then received small doses of morphia (U. S. solution) to relieve the pain in the side, and also small doses of sweet spirits of nitre.

Jan. 9.—Bronchial breathing and broncophony over the upper lobe of the right lung.

In the morning the pulse was 110; the respiration 34; and the temperature 103½° F. In the evening the pulse was 110; the respiration 32; and the temperature 102° F.

Jan. 10.—Morning: pulse 102; respiration 29; and temperature 100½° F.

Evening: pulse 104; respiration 32; and temperature 100½° F.

The patient was receiving milk and whiskey in half-ounce doses, every three hours. Twenty minims of the tincture of digitalis were added to the morphine, and the spirits of nitre was continued.

Jan. 11.—Morning: pulse 56; respiration 30; and temperature 99½° F.

Evening: pulse 57; respiration 30; and temperature 100° F.

Jan. 12.—Morning: pulse 55; respiration 29; and temperature 99° F.

Evening: temperature 99° F.

From that date there was no history of fever, and resolution was indicated by the presence of crepitant and subcrepitant râles (redux) and a change of the bronchial into the broncho-vesicular respiration.

The disease was of short duration. The patient was taken with a chill on Jan. 2d, and on the eighth day of the disease (Jan. 10th) there was a marked decline in all the symptoms.

It was left for the observers to decide, each for himself, whether the disease was brought to its happy termination by the remedies administered, or whether recovery was due to the effort of Nature.

CASE III.—*Pneumonia at the apex—Treatment, active and antipyretic—Case progressing favorably.*

The general condition of this patient was not good, and was such as to render him less able to tolerate the affection.

A male patient, colored, and aged 48, was admitted to the hospital on the 6th of January, 1879. Family history negative. He had led a wandering life, but had had no serious illness, except intermittent fever several years ago.

On Jan. 3d the patient arose feeling as well as usual, but in the middle of the forenoon was seized with a severe chill. He was unable to continue his work, returned home, went to bed, and soon began to suffer from pain in the head, back, and limbs. In the evening he had a sharp pain in the right side near the nipple. He had some cough; expectorated a thin white viscid sputa. The cough was suppressed as much as possible, on account of the pain produced by it. He suffered from dyspnœa, anorexia, and slight diarrhœa, and when admitted had headache and a temperature at 12.30 P.M. of 104½° F. At 4.15 P.M. his temperature was 105¾° F. and he received xxv. grs. of the sulphate of quinine.

At 7 15 the temperature was 103° F. At that hour of the day, fall in temperature would not be expected in the natural progress of the disease, and it was altogether probable, therefore, that the decline was due to the large dose of quinine. There were bronchial breathing and broncophony over the upper lobe of the right lung, most marked behind. There were no râles present. The urine was acid, had a specific gravity of 1020, did not contain albumen, but contained oxalate of lime and some pus and blood. There were also present epithelial and granular casts. The patient had urethral stricture.

On Jan. 8th the pulse in the morning was 120; the respiration 40; and the temperature 104¾° F.

At 12.30 P.M. the temperature was 105½° F., and xl. grs. of the sulphate of quinine with xix ℥ of aromatic sulphuric acid and xx. ℥ of tincture of opium were given by enema.

At 7.10 P.M. the temperature was 104° F. A few crepitant râles were heard over the upper lobe of the right lung in front.

Sweet spirits of nitre was also administered in this case.

Jan. 9.—Morning: pulse 96; respiration 30; and temperature 102° F.

At 12.30 P.M. the temperature was 105¾° F.; and at 7.10, 105¾° F. At 8 P.M. he received xx. grs. of quinine.

Jan. 10.—Morning: pulse 84; respiration 30; and temperature 100½° F.

At 12.30 P.M. the temperature was 101½° F., and at 7.20 P.M. 105¾° F.

Subcrepitant râles could be heard over a circumscribed space over the upper lobe of the right lung behind. The patient received milk and eggs, and whiskey in half-ounce doses every three hours.

Jan. 11.—Morning: pulse 90; respiration 28; and temperature 102¾° F.

At 1 P.M. the temperature was 101½° F., and at 7 P.M. 104½° F.

The patient had a moderate diarrhœa which was checked by chalk and opium powders.

Jan. 12.—The morning temperature was 101½° F., and at 7 P.M. it was 103½° F.

The case was progressing very satisfactorily, although the lung had not yet completely resolved. To meet such symptoms as might arise and to nourish the patient well were the indications.

## Progress of Medical Science.

SATURNINE HEMIPLEGIA.—At a recent meeting of the *Société Médicale des Hôpitaux*, in Paris, M. Debore reported a remarkable case of this rare affection, of which only five or six cases have hitherto been reported. The patient was a worker in lead, and when brought to the hospital was suffering from coma and delirium. He gradually regained consciousness, but remained hemiplegic on the left side. Four months later the hemiplegia still persisted, but the patient could walk, dragging the left leg slightly. The mouth was drawn to the other side: no ptosis; anæsthesia of the left side of the tongue; impairment of hearing on the left side, with obstruction of the Eustachian tube; central scotoma on the left side, but vision perfect on the right side. In the hope of curing the hemi-anæsthesia, M. Debore applied the electro-magnet of Faraday, and in half an hour he demonstrated an incomplete return of sensibility, with improvement of the sight and hearing, but not of the senses of taste and smell. M. Debore thinks that in this case he has excluded by careful examination the possibility of simulation. Experiments with a false magnet remained negative, while those with a true electro-magnet gave the above results.—*Gazette des Hôpitaux*, Feb. 5th.

TREATMENT OF OSTEOMYELITIS.—In one of the forms of epiphyseal ostitis, the inflammation of the spongy tissue of the epiphyses gives rise to very marked softening of the substance of the bone. The course of the disease may be arrested in the following manner: After careful palpation has revealed the point at which the softening of the bone is most marked, a scalpel is freely introduced in this situation; a simple puncture of the skin is made, but the knife is entered boldly and deeply. In osteitis, the skin and the compact tissue of bone are merely punctured, but the areolar osseous tissue is freely incised, since this is in danger of being strangulated by the compact tissue which surrounds it. After this operation the improvement and cessation of the pain are almost instantaneous, as after incision of a felon. A dressing of cotton batting is then applied. The same operation may be resorted in place of trepanation of the mastoid process, which is indicated so frequently in purulent discharges from the ear. The mastoid process is carefully examined in order to detect a point which is less resistant than the surrounding parts, and the scalpel is then plunged in to a depth of one or two centimetres. Sometimes a discharge of pus,

but often merely blood escapes. In either event, however, the inflammation subsides, and the discharge of pus from the ear ceases. The pain is instantly relieved.—Dr. Guerin, *Journ. de Méd et de Chirurg.*, March, 1879.

Retention of Urine cured by Metallo-therapeutics.—The patient, an hysterical woman, 40 years of age, had been treated for several years for permanent spasm of the neck of the bladder, metritis and marked hyperæsthesia of the left ovary. During last year she had retention of urine lasting five months and necessitating the daily use of the catheter. This was finally relieved by the use of antispasmodics and suppositories of belladonna. Last November the retention reappeared in a more distressing form than previously. The introduction of the catheter gave rise to a spasm of the urethral muscles and to intense smarting pain; it often produced an hysterical convulsion, attended with loss of consciousness. The patient would not drink for two or three days in order to delay the introduction of the catheter. Metallo-therapeutics were then resorted to. It was found that the application of gold to the skin increased the convulsive movements of the limb to which the patient was subject, while other metals, such as copper, steel, and silver, caused their immediate disappearance. Burg's armatures, composed of the latter metals, were then applied to the vesical region and around the upper part of the thighs; an hour later, the patient urinated freely and without pain. After this, the catheter was not again introduced; if the discharge of urine was delayed, the armatures were applied, and micturition was then performed naturally, sometimes, however, with some pain.—Dr. Dupuy, *Journ. de Méd. et de Chirurg.*, March, 1879.

A Case of Béribéri.—Béribéri is an affection which occurs especially in warm climates, is either sporadic or endemic, and usually attacks the colored races. It begins with general weakness and a feeling of great oppression; this is frequently combined with anasarca, multiple serous effusions, and motor and sensory disturbances, following an ascending course. There are two principal varieties, the dropsical and the paralytic forms. The dropsical form predominates in South America, but the paralytic variety may also develop there as shown by the history of the following patient: He is now 31 years of age, was born of French parents in South America, and lived in France from his seventh to eighteenth years. He then returned to Brazil. Three years ago he suffered from an affection of the liver and spleen. Eighteen months ago the patient became affected with weakness of one leg, which soon extended to the other; he suffered from slight but frequent pains in the legs. Two months later, the upper limbs became involved in the same manner, and the patient was confined to his bed; the left side was more affected than the right. These symptoms were soon followed by anorexia, difficult digestion, constipation, vertigo on turning around; no cephalalgia. The attending physician made a diagnosis of béribéri and advised his return to France. In January, 1877, I found the patient in the following condition: all the limbs were almost equally atrophied; the feet are in forced extension; the paralysis of the legs is almost complete on both sides. The thighs are somewhat atrophied but retain considerable muscular power. The muscles of the legs do not respond to electricity. There is marked paralysis and atrophy of the forearms, especially on the left side; slight diminution of tactile sensibility is observed. The muscles of the arms, shoulders, and neck are not involved; special senses and intellectual faculties normal. January 10th, a succession of large vesicles, resembling herpes, appeared on the left side; February 2d, a second eruption appeared in the same position and lasting a week; February 16th, a third crop; February 19th, spontaneous pain over the ulnar nerve, in the course of which the eruption had appeared. The patient's condition remained *in statu quo* until the following June, when he began to mend slowly but progressively, and in July of the following year he was able to walk very readily, and had gained considerable flesh.

In the majority of cases the disease begins with numbness, stiffness, pains and deformities in the lower limbs. In the mixed forms, the limbs atrophy, œdema develops, the skin becomes dry and wrinkled; intelligence is preserved.

Various theories have been advanced to explain this affection, but none have proven satisfactory. In my opinion it is due to a lesion of the spinal cord, the nature of which must be determined by future investigations.—M. Laboulbène, *Gaz. des Hôpit.*, No. 26–27, 1879.

Ovariotomy—A Series of Fifty Cases.—An addition to the statistics of ovariotomy, consisting of a series of fifty cases, has been given by Schröder (*Berl. Med. Woch.*). With one exception, all the operations were performed in the lying-in hospital, Lister's method being strictly adhered to. Of these cases seven, or fourteen per cent., ended fatally; three of the patients dying with symptoms of septicæmia. If no septic germs enter the abdominal cavity, the most dangerous case, Dr. Schröder thinks, may be expected to terminate favorably; but this is not always possible. In two cases of pregnancy the operation was successful, and the procedure is strongly advocated during the early months of pregnancy, because by this means the woman will be spared the dangers of a complication of gravidity and ovarian tumor, and the child is not exposed to greater risks. In one instance a cyst, the size of a man's head, was complicated by a solid tumor of the sacrum, and thrombosis of the left crural artery. The patient survived the operation, and soon recovered. The base of the tumor was once stitched to the abdominal wound to prevent retroflexion of the uterus. Small tumors present more difficulties than larger ones. If the tumors are uncommonly large, the abdominal walls are over-stretched, and the peritoneal cavity is almost empty. This may be the cause of infection through the air entering, and carrying with it zymotic germs. To prevent this it is advisable to draw the intestines into the pelvic cavity, and cover them with the omentum. Where the shortness of the mesentery prevents this, the relaxed abdominal walls should be pressed into the true pelvis. In two cases portions of the abdominal walls were removed, but without producing any particularly favorable result.—*The London Medical Record*, March 15th.

A Strange Fact.—Dr. A. E. Goodwin, of Rockford, Ill., writes: "In your journal of the 29th March, page 312, 'A Strange Fact' reminds the writer of a similar one in practice some twenty-six years since in the State of New York—a child born with but one hand. The one wanting corresponded to that of a bachelor boarder in the same tenement-house, who had a stump from amputation at the wrist. Strange to say, such is emotion affecting the organic functions or changes of nutrition of fœtus through changes in the mother's blood."

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, April 26, 1879.


## THE NEW NATIONAL HEALTH BILL.

THE discussion of the Senate bill for the prevention of the introduction of contagious diseases in the United States has been to some purpose, as is shown in the bill recently presented to the House by Mr. Casey Young. Preserving the main features of the original one by Mr. Harris that of Mr. Young adds some new provisions which will tend to make practicable many of the measures that were previously proposed. For instance, as a proper starting-point, the sum of six hundred and fifty thousand dollars is appropriated for sanitary purposes, to be disbursed under the direction of the board. On a previous occasion, when commenting upon the bill of Mr. Harris, we maintained that it would be virtually inoperative for the want of a suitable sum of money to carry out the provisions of the act. That objection is now met by the appropriation in question, and gives a practical bearing to all the measures calculated to prevent the appearance of contagious disease or arrest its progress when once started.

The scheme of legislation which is proposed in the bill now before us, like the one of Mr. Harris already noticed, contemplates in general terms the national sanitary supervision of all vessels engaged in the transportation of goods or persons from any foreign port, where any contagious or infectious disease exists, to any port of the United States. All such vessels, before their departure from any infected port, are required to have a certificate of health from the consul or health officer appointed by this government, and cannot, under penalty of a heavy fine, enter any port of the United States either to land passengers or cargo.

It is also provided that the National Board of Health collect and diffuse such information on matters of health, and shall advise local authorities of the course to be pursued in times of danger from epidemics, and in cases of necessity shall confer on said local authorities extraordinary powers to remove incompetent health officers, establish quarantine in sea-ports, and, inland, to erect suitable buildings along river and railroad routes for the disinfection of persons and baggage, and, with the aid of the different State authorities, to use every means to prevent the dissemination of contagion.

These powers are sufficiently ample, if they can be properly carried out, to meet the requirements of the greatest emergencies. The only trouble will probably be in reconciling State's rights with those of the general government. The States claim the constitutional right of protecting their citizens, as to health and property, personal liberty, and the like, and are jealous of any interference on the part of the general government with these functions. It would appear, however, that every precaution is taken to guard against any misuse of power on the part of the new board. In fact, without the co-operation of the State authorities, it would be virtually powerless for any real good in times of emergency. But there is a power behind that of the written law which will be felt when the real necessities of the hour become apparent, and that is, a general public opinion in favor of measures for protection. It is more than likely that everything will be done to aid the board in their efforts in preventing the spread of disease. The people at large will be too much interested in their own safety to listen to anything which does not contemplate the enforcement of even stringent regulations, and no State or municipal government will care to object to the published recommendations of a health board that is supposed to speak with authority on sanitary subjects and is believed to possess arbitrary power for the enforcement of their recommendations. Especially will this be the case when this board has the necessary amount of means at its disposal to aid local authorities in making sanitary reforms, in establishing quarantines, and in the construction of buildings for disinfecting purposes.

The desire for safety will be paramount to all other considerations, and it is more likely that the board will be upheld even in the exercise of what might at other times appear to be unwarranted authority, than that there should be any disposition to trammel its movements.

In the provisions of the new bill are enumerated the inspection of cattle arriving at or exported from the different shipping ports of the United States, also the investigations into the contagious and infectious diseases of said cattle, and the general dissemination of information regarding the same. These are commendable features in the bill, and may be made perfectly feasible by employing suitable experts to investigate and report. At this time there is a special need for some trustworthy statements not only in reference to the actual existence of certain cattle diseases

throughout the country, but of their relative prevalence in different quarters.

In conclusion we would say that the bill of Mr. Young is thus far the most comprehensive in its details, the most reasonable in its provisions, and the most likely to meet with the endorsement of the profession and the public of any which has heretofore been presented to the Legislature. It is difficult to see how it could be improved in any way to meet the necessities which are likely to arise the coming summer. As an experiment it deserves an impartial trial. It is unnecessary, perhaps, to say that we hope the bill will pass, and give an opportunity of proving, by actual application, principles of sanitary legislation which, from a theoretical standpoint, appear to be so nearly perfect.

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### HOMŒOPATHY AND MEDICAL INSTRUCTION.

A MEMORIAL has recently been presented to the Legislature of Michigan by the homœopathic physicians of that State praying for the removal of the Homœopathic College from the State University. The petitioners say that the college is an expensive failure, its lack of success being due to the fact that the "allopathic" department is old and well-established, and monopolizes all the best sentiment of the place. In the hospital connected with the department, there have hardly been half a dozen patients. In fact, the institution has not fulfilled the expectations of its friends and can only be continued at an unnecessary cost to the State. It is asked that the college be located elsewhere and the appropriation for it be continued.

In connection with this movement some facts in regard to the status of homœopathic colleges abroad have been developed. The University of Pesth, in Hungary, is said to be the only place in Europe where this system of medicine has a prominent place as a government institution established by law. Here there are two professorships supplementary to the regular course, attendance upon these special courses being elective. The greatest number of students before these professors appears to have been six, and often they have actually had no audience at all. Some time after the establishment of these courses an attempt was made to introduce homœopathic professorships into the University of Vienna. No opposition was made by the established professors, but the homœopathic physicians of Vienna petitioned against the movement, asserting that homœopathy could stand upon its own ground and did not need State aid. A confidence so serene and disinterested as this was not to be disregarded, and the new professorships were not established.

The conclusion to be drawn from these facts is, that whenever homœopathy is allowed to come out and display itself to intelligent students by the side of regular medicine, it very soon attenuates and collapses. On the other hand, it is denied the opportunities that have been furnished it for the cry of intolerance and persecution which have assisted so materially heretofore. It was, for example, through such opportunities and its co-educational advertisement that the Boston Homœopathic School originated and attained a certain amount of prosperity.

It may be well to remember these facts in connection with the proposed amendment to the national code of ethics, to be discussed by the American Medical Association at its coming meeting. This amendment practically forbids medical men to teach persons who they know will subsequently practise some exclusive system of medicine. We do not believe that this is either just or politic. Its first practical result will be to demoralize and perhaps destroy a well-established and reputable school such as that at Ann Arbor, thus accomplishing exactly what the homœopaths desired when they first got themselves legislated into it. A way would be opened by it also for injuring other institutions in the same manner by legislative interference.

Further, a medical instructor has the right to teach whatever pupils he chooses, provided he teaches what he believes to be true. And a professor's honor and dignity depend not upon his audience but upon what he himself says. He cannot be made a better man by excluding prospective homœopaths from his lecture-room, and neither will such proceeding lessen the number or diminish the prosperity of the followers of dogmatic medicine; but rather the contrary. In fact, the measure would only be embarrassing to teachers, and fruitless of good results in any way.

We need place the question, only on the right of the professor to teach the truth to sinners, and on the ground that it is inexpedient in every sense to enforce an exhibition of what, to a large part of the regular profession and all enlightened outsiders, will appear a gratuitous intolerance. If we believe that no narrow and exclusive creed can live, we need not act as though we feared it might do so, should the slightest apparent help be extended to it.

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### A SANITARY PROTECTIVE ASSOCIATION.

AN Association under the above name has been formed at Newport, R. I., for the purpose of securing, at a moderate cost, sanitary advice and protection to its members. Such associations have been in successful existence in Edinburgh, but this is the first of its kind n this country. The organization includes an inspecting engineer and a chemist. The members pay an annual due of six dollars, and for this are entitled to have their house inspected by the engineer and an analysis of the drinking-water made by the chemist. By a small additional fee they can obtain similar service for any other houses which they may own. They can also have a report, without fee, upon the sanitary condition of any church, school-house or place of public resort within the city of Newport,

and can have occasional supplementary inspection and advice concerning the dwelling or property in respect of which they are subscribers.

The Association is intended to supplement and not conflict with any public health board. Its object is an excellent one, for it cheapens the cost of thorough sanitary inspection, and will therefore tend to diffuse a wider knowledge and excite greater attention concerning matters of public hygiene.

### A NEW BOARD OF HEALTH.

THE State of North Carolina has recently created a Board of Health, with powers which will render it a very useful organization. Six of its members are elected from and by the State Medical Society, and three are appointed by the Governor. Its duties are much like those ordinarily bestowed upon such boards, but it is not given any power in connection with licensing or regulating medical practice, as is done in some Western States. An especially good feature is its coöperation with county boards, which are at the same time created. Through these two forms of organization all matters relating to inland quarantine, vital statistics, and general sanitation, are regulated. The provisions of the bill are very creditable to the wisdom of the medical and legislative bodies of the State.

### THE AMERICAN MEDICAL ASSOCIATION.

THE next meeting of the American Medical Association will be held in Atlanta, Ga., commencing May 6th. The programme which has been arranged is attractive; and if the attendance is good, as we hope it will be, the meeting cannot fail to be an interesting and profitable one.

Although the distance from the Eastern and Middle States will probably prevent the attendance of a large majority from those districts, the proportion will be made up by delegates from the South and West. The president's address will doubtless be an eloquent and suggestive one, and amply repay the thoughtful attention which we confidently bespeak for it. From all accounts, the work in the sections will be of rare scientific value, while the reports from the different committees will be of unusual interest. The strictly business portion of the meeting will be comparatively unimportant, unless the Association insists upon passing the proposed amendment to the Code, forbidding the teaching, in regular medical schools, of prospective homœopathic practitioners. We hope, however, that this will not be the case, as such a course, if taken by the Association, will certainly stultify it, not only in the eyes of the profession, but of the public at large.

### INEFFICIENCY IN EXPERT TESTIMONY.

IN a report upon certain medico-legal cases by Dr. Thad. M. Stevens, the bad state of affairs that still exists in connection with expert testimony is very clearly shown. Experts who are ignorant, experts who lack common sense, and experts who are dishonest, are referred to in the illustrative cases cited. We have before commented on this and shown, as is done by Dr. Stevens, that, while there are many points in toxicology not yet satisfactorily worked out, yet the present trouble does not lie in the incompleteness of the science, but in the present method of calling experts, some being retained by the prosecution and some by the defence.

The first case given, in particular, shows what an ingenious expert can do when under the stimulus of a fee from the defence. A woman received a potion from her husband and a few hours afterward was taken with convulsions and died. The defendant's expert admitted at first that the symptoms covered nearly all those of strychnine-poisoning. In addition he had received privately the glass from which the potion was given, and found strychnine still in it. He did not mention this fact, however, but testified that though the symptoms were much like those from strychnia-poisoning, they might have been due to morphine—a drug the woman had been in the habit of using, and one whose effects sometimes resembled those of strychnine. He asserted that no strychnine was found in the stomach, but omitted to mention that morphine might obscure the test. In fact, the exhibition, from a scientific point of view, was truly a grotesque one; but the defendant was acquitted. Other cases of like character are given, but such things are too well known to need further illustration here.

The only remedy, and it is a simple one, is to have a commission of experts appointed by the court: they can then work without bias, and can produce evidence that is not contradictory and that does not make themselves ridiculous and their science inefficient. The existence of much false and stupid testimony has now become a glaring fact, of which we have had some very interesting instances in New York, and the present pamphlet should help to awaken some practical efforts for reform in the matter.

TWELFTH ANNUAL REPORT OF THE ST. FRANCIS HOSPITAL for the year ending December 31, 1878.—This report is printed, as usual, in German and English, and it shows a very active service during the past year. 1,651 cases were treated, of whom 208 died, making a mortality of about 12 per cent. This large mortality is due to the fact that the hospital admits many moribund and incurable cases, more than 100 dying of phthisis alone; 32 fractures and 5 dislocations were treated, the most frequent of the former being those of the clavicle (7) and of the radius (7). Ovariotomy and kolpo-cystotomy were each performed once. There were seven cases of hernia, of which five were operated on. Two cases of median lithotomy and five of external urethrotomy are also recorded.

# Reports of Societies.

## PHILADELPHIA COLLEGE OF PHYSICIANS.

REGULAR MONTHLY MEETING, FEB. 5, 1879.

(Reported for THE MEDICAL RECORD.)

### THE EARTH-TREATMENT OF TUMORS.

DR. ADDINELL HEWSON presented a paper on a case of fibroma of the uterus undergoing cystic degeneration, which he had treated by the external application of a paste of clay and water.

The patient had been suffering for six years from a steadily growing tumor in her abdomen, which was first detected after a suppression of menses consequent upon her bathing in the Hudson river on the second day of the flow. This suppression had continued ever since, and had been attended by severe and constant pains in the loins and inguinal region. Dr. Hewson saw the patient for the first time on October 20, 1878, at a relation's house in Philadelphia. She was propped up in bed, suffering from great dyspnœa and exhaustion, and with the tumor so large and projecting that she could not see her knees. The integument covering the tumor was in a state of marked hypertrophy, and was constantly weeping a watery fluid. The vulva was excessively œdematous. The patient's bowels were regular, but micturition was abnormally frequent. Before the tumor appeared she weighed 107 pounds, and when Dr. Hewson saw her, 165 pounds, showing that she had gained 58 pounds in weight in spite of the general emaciation apparent.

All that was done at the first visit was to apply a paste of clay and water, one and a half pounds of the former to three-quarters of a pound of the latter, so as to completely cover the tumor, retaining the dressing *in situ* with a thin layer of cotton batting. This application was followed by marked relief. The urine was examined on the day following, and found to be free from albumen, but heavily loaded with phosphates.

The dressing was then renewed, the same quantity of clay and water being used and the same covering of cotton wadding. Upon this occasion a four-inch roller was run round the waist and a loop of the same breadth fastened to this waist-band well back in the lumbar region on both sides, after having carried it under the tumor close to the symphysis pubis, thus affording the needed support.

On the next day the patient was so much improved that a physical examination was made, with the following results: great tympany under the ribs on the left side; then, below, to a line corresponding with the umbilicus, whilst the patient was sitting up, distinct succussion as of a fluid confined to that portion of the peritoneal cavity; there was then the dulness and feeble succussion, or jelly-like movement, belonging to fibro-cystic tumors, extending down from the line of the peritoneal fluid, and confined to the central portion of the belly, as though there might be a fibro-cystic growth from the body or fundus of the uterus. This growth was evidently extensively bound down by peritoneal adhesions below.

The patient continued to improve steadily under the treatment employed, so that measurements made with a strong tape-line on December 14th, showed that between that date and October 21st, the circumference of the body at the xiphoid cartilage had decreased from 36 to 31 inches, and at the umbilicus from 48¾ to 41¼ inches; that the distance from the umbilicus to the xiphoid cartilage had decreased from 12 to 9 inches; the distance from the umbilicus to the symphysis pubis from 17 to 12 inches; the distance from the umbilicus to the right anterior spine of the ilium from 16½ to 12½ inches; and the distance to the left anterior spine from 15 to 12¼ inches; that the circumference three inches above the umbilicus was 41 instead of 48¾ inches, and three inches below the umbilicus, 42 instead of 46 inches.

During this time the patient had been walking about her room, sleeping comfortably on both sides, and even dressing herself with a silk dress which she had not before been able to make meet on her person for more than two years. She was also perfectly confident of her complete recovery.

During the Christmas holidays she very imprudently walked over nine squares on Chestnut street, and became so exhausted that she had to go into a store for rest. Two days after, there was some œdema of her right foot and her urine became scanty, but it contained no albumen. From this time she grew steadily weaker, notwithstanding the free use of stimulants and fluid nutriment, and finally died from exhaustion on Saturday, February 1st, at 12 P.M.

At the *post-mortem* examination, when the abdominal walls were separated from their adhesions, a number of fibrous cysts were found, from the size of a goose-egg down to that of a pea, in a state of collapse and empty of fluid. The peritoneal surface of the abdominal walls, at those parts where the integument was hypertrophied, was singularly coated with a product in a state of evident degeneration. Upon cutting along the linea alba above the umbilicus, a large cavity containing twenty pints of a brown serous fluid was found. The viscera were all pushed up under the ribs, and the liver was shrivelled. The tumor was bound by broad bands to the liver and diaphragm.

The specimens were examined microscopically by Dr. Morris Longstreth, who furnished a report, of which the following is an abstract: "Tumor fibro-cystic, with firm, jelly-like feeling, covered with thick shining capsule, and connected by a short, flat pedicle to the fundus of the uterus. It was adherent to the abdominal walls below and to the right of the umbilicus, and also connected with the fundus of the gall-bladder. These adhesions contained large arterial and venous trunks, in whose walls were partly encircling, calcareous plates. The gall-bladder contained some biliary concretions, and the cystic duct was closed. The tumor was adherent to the omentum, which was shrivelled and devoid of fat. The uterus was slightly elongated, and its tissue was flabby and atrophied. On its peritoneal covering were found two pea-sized fibroid nodules. The ovaries were small and nodulated.

"A section of the tumor showed that its consistence varied greatly, as did its color, only limited portions showing the usual aspect of fibroid tissue. Numerous bloody points were seen, and many large and small, cyst-like, rounded areas. A microscopical examination of the tumor sufficiently established the undoubted fibroid nature of the growth."

The tumor and fluid removed weighed, the former 27½ pounds, and the latter 20 pounds, making a total of 47½ pounds, which was in striking contrast with the weight of the patient before the appearance of the tumor (107 pounds), and her weight when Dr. Hewson first began his treatment (165 pounds), thus showing a loss of weight of some 10½ pounds to be put down

to the credit of the earth-treatment. Perhaps even a larger loss in the actual weight of the tumor might be claimed, since the patient was very much emaciated when she first came into Dr. Hewson's hands.

## NEW YORK ACADEMY OF MEDICINE.

### OBSTETRIC SECTION.

*Stated Meeting, March* 27, 1879.

DR. SALVATORE CARO, CHAIRMAN.

#### THREATENED MAMMARY ABSCESS.

DR. O'SULLIVAN referred to a case in which, by the local application of extract of belladonna, he had prevented the formation of a mammary abscess.

DR. CARO remarked he had noticed in several cases that when belladonna was applied to one breast the pupil upon the *same* side became widely dilated, while the pupil upon the opposite side remained unaffected. He had also noticed that dryness of the mouth was confined to the side upon which the belladonna was applied.

DR. POST remarked that he had applied belladonna locally for the relief of frontal neuralgia, with the result of dilatation of the pupil upon the *opposite* side.

DR. CARO suggested that the nearness of the application might explain such a result.

#### CAULOPHYLLUM.

DR. SELL again referred to the beneficial effect produced by the fluid extract of caulophyllum for the relief of pains during the latter months of pregnancy.

#### UTERINE HEMORRHAGE AND INJECTIONS OF HOT WATER.

DR. POST referred to his recent favorable experience in the use of hot-water injections for the arrest of uterine hemorrhage—the water having a temperature from 110° F. to 120° F.

#### OBSTINATE URTICARIA.

DR. JOEL FOSTER referred to a case of urticaria which had resisted a great variety of treatment. Partial improvement had taken place under the use of quinine and dilute hydrochloric acid—a general tonic plan—pepsin, and various remedies, but the disease continually recurred.

DR. POST suggested a bath containing ℥ iv. of sulphuret of potassium to an ordinary bath-tub of water.

DR. CARO suggested the use of hyposulphite of soda in doses of five grains three times daily.

#### UNCHANGED CAPSULES OF QUININE.

DR. FOSTER mentioned an interesting fact in connection with the exhibition of quinine in the case reported. The patient was first attacked by the urticaria in the eighth month of pregnancy. On the fifth day before her confinement she had a decided chill, and the temperature rose to 106° F. He at once gave twenty grains of quinia in capsules. Forty-eight hours afterwards she had a second chill. The stools, which were semi-fluid, were examined, and found to contain the capsules unchanged. The quinine was then administered in powder, and the chills did not return.

#### A RECTUM PACKED WITH PILLS.

DR. POST referred to a case of obstinate constipation, in which the rectum was found blocked by a solid fæcal mass, requiring the scoop for its removal. When examined it was found to contain hundreds of pills.

#### PILL FOR RELIEVING CONSTIPATION.

DR. FOSTER suggested as a remedy for constipation a pill containing:

℞. Rhubarb (Turkey)..... gr. iij.
Carbonate of soda..... gr. i.
Ipecac ..... gr. ss.
Oil of anise..... gtt. v.
M.

To the above one or two grains of pil. hydarg. might be added at times with benefit. The pills should be taken at night.

#### CHEMICAL AND MICROSCOPICAL DIFFERENCES IN MILK FURNISHED BY THE RIGHT AND LEFT BREAST OF THE SAME WOMAN.

DR. CARO then read a paper in which was reported several cases in which he had noted microscopical and chemical differences in the milk from the right and from the left breast of the same person. In all his cases the milk from the right contained a very much greater amount of nutritive material than that from the left breast.

On motion the paper was referred to the Academy, and the Section adjourned to discuss nutrition from another standpoint.

## CHICAGO MEDICAL SOCIETY.

*Regular Meeting, March* 17, 1879.

DR. E. INGALS, PRESIDENT, IN THE CHAIR.

DR. E. L. HOLMES read some notes on

#### ATROPIA, DUBOISIA, ESERINE, PILOCARPINE, AND MUSCARINE

as used in ophthalmic practice.

Atropia solutions frequently irritated the eyes, notwithstanding the addition of sodic sulphate or morphia, and a new mydriatic was desirable.

Hyoscyamine and ex. hyoscyamus were unreliable.

Duboisia was first obtained by Dr. Wecker, of Paris, in March, 1878; it was the product of a South Australian tree. Dr. Holmes had only seen two specimens. He had substituted it for atropia in a case of keratitis, in which prolonged use of the latter had caused great irritation of the conjunctiva and swelling of the lids. These symptoms at once subsided with the use of the duboisia—gr. i., aquæ ʒ ij.

According to Wecker and others, duboisia possessed the property of dilating the pupils and paralyzing the accommodation even more promptly than atropia.

Eserine and pilocarpine caused contraction of the pupils and spasm of the ciliary muscles. Patients under their influence could see objects only relatively near—just the opposite of the effect of atropia. The influence of eserine and pilocarpine was much less durable than that of atropia. The solution of pilocarpine was more durable than that of eserine, and was also reputed to be less irritating to the eye.

Eserine had been used with benefit in glaucoma, staphyloma, and conical cornea, ulcer of the cornea with or without hypopion, where the iris had been engaged in penetrating wounds or perforating ulcers of the cornea. It had been claimed that it reduced suppuration of the conjunctiva and inflammation of the nasal duct and sac.

While atropia was supposed to dilate the vessels of the eye, eserine contracted them. These two alkaloids were dangerous in iritis.

He had used muriate of pilocarpine in two cases of

keratitis punctata, often an obstinate disease. Speedy relief without irritation resulted.

In a case of staphyloma with increase of tension, and in one of conical cornea with ulceration and conjunctivitis, but without tension, this agent had relieved active symptoms. In three cases of ulcer of cornea with conjunctivitis, no benefit followed its use. The solution for local use had been gr. iv. to aquæ ℥ j.

*Muscarine* was one of the active principles of poisonous mushrooms. It was a syrup-like alkaloid, without color, taste, or smell, soluble in water. It caused spasm of the apparatus of accommodation. It contracted the pupils variably in different individuals. By union of muscarine and atropia, dilatation of the pupil and spasm of the ciliary muscles might be produced at the same time.

Muscarine in poisonous doses arrested the heart's action; atropine tended to neutralize the effects of muscarine on the heart. Atropine in doses of $\frac{1}{100}$ of a grain should be administered at intervals to patients who had taken poisonous mushrooms.

Dr. F. C. Hotz said the continued use of atropine tended to reduce tension of the eye and cause softening of the tissues. Frequently the solution pained the eyes and reddened the lids. He related some illustrative cases. He believed pilocarpine was the remedy of the future.

Dr. Lyman Ware said in one case of glaucoma he had used pilocarpine with benefit.

Dr. Holmes thought there was great danger, in the use of pilocarpine, that the existence of iritis might be overlooked and injury done.

Dr. R. G. Bogue reported the following case of

TRACHEOTOMY FOR TUMOR OF THE LARYNX.

A boy, ten years old, in July, 1875, caught a cold, which persisted with cough and expectoration of mucus, with occasionally slight difficulty of breathing. He lost flesh, and the obstruction of breathing by November became quite troublesome, and was worse while sleeping. Dr. H. A. Johnson found, with the laryngoscope, ulcer of the top of the epiglottis, and in the left aryteno-epiglottic fold a small tumor, which folded that side of the epiglottis downward and toward the median line, obstructing the respiration, especially when the laryngeal muscles were "off their guard," as in sleep. A twenty-grain solution of sulphate of zinc was atomized, with a hand-instrument, into the throat every two or three days; an alum gargle was ordered, and quinine. The case grew worse, and tracheotomy was performed January 2, 1876. The zinc solution was still applied, but with a post-nasal syringe. Improvement followed, except that the tumor did not disappear. In May he had whooping-cough, during the continuance of which the tumor diminished, and in two months was nearly gone. During this time he was taking iodide of potassium. In October only a slight nodule remained, and the tube was removed. The boy still had and has a partial loss of voice; he is only able to speak in a tone between a whisper and the ordinary voice.

There was no evidence of hereditary syphilis in the case.

Dr. Bogue also reported a case of

PHLEGMASIA DOLENS, WITH AMPUTATION OF THE LEG—THE CASE SIMULATING POPLITEAL EMBOLISM.

Mrs. ——, æt. 24, healthy, was delivered of her first child February 18th. The labor was natural, and nothing unusual occurred till the 23d, when the severest pain appeared in the calf of the left leg. This required for its relief large doses of morphia—half a grain being given at a time hypodermically. Moderate swelling of the leg and in the popliteal region occurred, with some tenderness. In three days the ball of the foot and side of the great toe became discolored; this appearance, with coldness and loss of sensation, rapidly extended up the limb, so that by March 5th the leg was gangrenous from its middle downward. The leg was only slightly swollen, and the foot was shrunken.

Pulsation of the femoral artery just below Poupart's ligament was quite feeble. The long saphenous vein was neither distended nor tender. There was now (the first day Dr. B. saw the case) no particular odor from the limb. The limb was kept very warm, and the patient stimulated slightly, and fed with nourishing food. By March 7th the gangrene had reached to within five inches of the knee. Spells of very severe pain continued. The lochia had ceased. No discomfort had been complained of in the pelvis. By the 14th a line of demarcation was apparent just below the knee. On the 16th amputation was made at and through the knee-joint. The soft parts at the seat of operation were firm from sero-plastic effusion. Lateral flaps were made, and secured through their anterior two thirds; posteriorly they were left open for drainage. The soft tissues of the popliteal space were divided at about the middle of the space. At this point the artery was patulous, but small; it was unobstructed "as far down as it was examined, which was beyond where it breaks up." It must have been unobstructed upward, for it throbbed well after ligation. Two popliteal veins and all the deep veins were full of firm clots, the subcutaneous ones alone being free. The clots in the deep veins did not extend "above where the internal saphena joins, for this was unobstructed." The patient recovered, notwithstanding some burrowing of pus in the thigh. Two weeks after the operation a phlegmasia dolens of the other limb came on, which, however, was not severe.

The case was clearly one of phlegmasia of the deep veins of the leg. Dr. B. regarded it as a very rare form of the disorder. Gangrene occurred from the sudden complete obliteration of a large part of the venous system of the leg.

Dr. R. Park and Dr. D. W. Graham presented pathological specimens of bones.

## Correspondence.

### STILLMAN'S JOINT SPLINT.

To the Editor of the New York Medical Record.

Sir:—I have just read an article in the Record entitled "A New Joint Splint, with a Description of its Application to the Knee," in which Dr. Stillman presents to the profession an apparatus for which he claims many advantages, especially in its power to produce fixation and graduated extension in joint diseases. The principles of the application of joint extension appear to be so misunderstood by the writer in advocating the use of his apparatus, that I cannot refrain from calling attention to the article. Without doubt, in certain cases of knee-joint disease, where there is little or no deformity, the brace proposed by Dr. Stillman would be of some use in producing fixation; but in well developed arthritis, whether originating in the cartilage, synovial membrane, or ligaments, I cannot see how it can be of the slightest benefit.

The real indication in joint diseases is absolute rest of the part, together with moderate extension. Any one, on first observing an individual case, must notice nature's exaggerated efforts to meet these indications. Reflex muscular contraction in joint diseases is, primarily, conservative, although it results, if unchecked, in contracture and consequent deformity. How are we to prevent the deformity, and, at the same time, produce equal and moderate extension, together with fixation? The difficulties in devising any practical apparatus for the knee-joint are very great. Here we have the largest and strongest articulating surface, protected by numerous ligaments and surrounded by powerful muscles. Hence, in order to produce extension or overcome deformity, it is necessary to exercise great force, and that, too, continuously for a long time. Not only so, but the direction of the force is a matter of the greatest consequence. It must be exerted in two directions: first, in the line of the deformity, *i. e.*, extension of the joint; second, in opposition to the deformity, *i. e.*, extension of the contracted muscles. If we view the instinctive muscular contraction as primarily conservative, we must graduate our extension of the muscles by our extension of the joint. Now, it is impossible to fulfil these indications with the instrument devised by Dr. Stillman, inasmuch as, from its construction, it can do no more than overcome by a steady pressure the excessive flexion. And this action must be more of disadvantage to the diseased part than of benefit. We are aware that one of the chief troubles after operation for false ankylosis at the knee-joint (*brisement forcé* of Bauer) is the inflammation consequent upon the pressure together of diseased articular surfaces, since all the force used in breaking up the adhesions is expended upon the joint, which must necessarily be the fulcrum of the lever. And if this be the case in the comparatively short time of operation, how much more must it be true when the knee-joint is made the fulcrum of long-continued lever-force.

The distinction between extension of the knee-joint and extension of the leg, has evidently not occurred to the doctor.

Now, a word as regards the apparatus itself. The doctor designs producing extension and counter-extension of the limb by means of two strips of steel, connected at the knee by a compound ratchet-bridge, and fastened to the thigh and leg by leather and metallic girths, or by plaster-of-Paris. He relies on the natural conformation of the thigh to produce counter-extension, direct extension being produced by riveting the apparatus to the shoe. It would almost seem as if the doctor had never made use of the instrument he has designed, for an application of it, according to his description, would be very difficult. The natural conformation of the thigh will allow counter-extension, but only when the constriction of the limb is very excessive. The tissues of the middle and lower thigh are very yielding, and the close application of the apparatus to overcome this tendency would amount to almost virtual strangulation. After some little time there would necessarily occur a great deal of atrophy in consequence. This would be so especially in case plaster-of-Paris were used, since its well-known tendency to contract on setting would make it almost impossible to obtain an accurately fitting surface. Had the doctor designed uniting the adhesive plaster with the plaster-of-Paris in such a manner as to make extension and counter-extension with the adhesive plaster, the desired action would have been much more certain.

Again, the use of the slotted strip does not seem to present the same facilities for graduated extension, nor so much certainty of retaining it, as the usual arrangement of the ratchet and key. In the latter case we have the extension-power directly under our control, with no possibility of its slipping away; while the method of unloosening slot-screws and pulling the lower part of the brace down seems very rude and inaccurate. Moreover, any one who has ever applied extension to the knee-joint, and is aware of the tremendous force necessary to accomplish it, would look upon the doctor's plan as futile. The only result accomplished would be the breaking of the plaster-of-Paris under the strong pressure. The truth of the matter is that braces, in most cases of chronic inflammation of the knee-joint, cannot meet the desired indications. Operation, either tenotomy, *brisement forcé*, resection, or amputation, according to existing conditions, seems to be the best known method of treating these chronic deforming diseases. In cases after operation, where fixation is necessary for a length of time, the instrument devised by Dr. Stillman might be of service, although, even in such cases, either Sayre's splint or the continuance of the plaster-of-Paris would meet the same indication, and be much more simple.

Yours truly,

JOHN R. HOBBIE.

211 EAST 13TH STREET, April 7, 1879.

## NATIONAL BOARD OF HEALTH AND HOMŒOPATHY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I see by the papers that the President has included among the members of the National Board of Health the name of Dr. Verdi, of Washington. Is he not the homœopath whose appointment, some years ago, as member of the Washington Board of Health caused such an excitement in the local Medical Society? Was not Dr. Bliss disciplined for consulting with Dr. Cox, whose offence was sitting in the same board with Dr. Verdi? Really, we think that the American Medical Association should, at its approaching session, take notice of this, even if it be necessary to propose a new amendment of the Code as was done last year to cover the case of the Michigan University.

Yours respectfully, X.

## MEDICAL REPORTS IN THE NEWSPAPERS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—It cannot, of course, be supposed that the surgical staff of Charity Hospital were cognizant of the presence of "a chiel amang them takin' notes" for the press on the occasion of Dr. Howe's recent operation for the transfusion of human milk, or that they were responsible for the publication, in the *World* of April 13, of a *verbatim* report of the professional colloquy over the case—a column in length, under the large-capped heading "A New Thing in Surgery." Naturally, none of the gentlemen concerned in the performance could suspect that the "large concourse of spectators" was not altogether of a medical character, or that a surgical procedure, in itself neither difficult nor uncommon, would furnish material for a newspaper sensation. But, in view of the inevitable ubiquity of the modern reporter, and the apparent inability of our metropolitan surgeons and physicians to exercise any control over the selection of their audiences, I would submit the expediency of persuad-

ing the American Medical Association to rescind that clause of the Code of Ethics which prohibits "to publish cases and operations in the daily prints, or suffer such publications to be made; or to invite laymen to be present at operations." This and sundry other sections of the said Code have long been proven incompatible with the practice of several of our most prominent practitioners, and if the public at large insist upon having stenographic details of everything said and done by a favored few of our brethren, whether in college lectures, papers before presumably private societies, or "interviews" touching esoteric medical theories, the respect for the will of the majority on which our whole system of government rests (to say nothing of our own reputation for consistency), should induce us to at once remove such mere verbal obstacles to the gratification of the public demand.

I am, sir, yours, etc.,

*Sic nos non nobis.*

## APOMORPHIA IN CYNANCHE.

To the Editor of The Medical Record.

Sir:—At an early hour on the morning of Feb. 17, 1877, I was called in great urgency to see the infant son of Mr. B. F. J——, one of my *clientele*. The father, who had come for me in person, to insure my immediate attendance, while I was dressing gave me the following condensed history of the case: The child, which was about two years old, had complained slightly the day before, and even the night previous to that; but the parents, being young and inexperienced, "thought it was nothing but a cold," and paid no attention to a series of symptoms (as detailed by the father) that would have excited the fears of older and more experienced persons. "Last night," added the father, "the little fellow did not seem to be so lively as usual, and was a little fretful; but, beyond a *mewing* sort of a cough, we never noticed anything wrong with him. He slept with his nurse in the next room to his mother and myself, but, though the door was open between us, neither of us knew that there was anything serious the matter until I went into the room a few minutes ago and found him in spasms and choking to death." On arriving at the house, which was distant but a half-block from my office, I found my little patient in a truly alarming and pitiable plight. He was lying on the bed, the head and trunk drawn far backward, with marked opisthotonos. The face was cyanosed and livid, the hands clenched, and from between the firmly-set teeth slowly exuded a frothy mucus. The struggle for breath, the gasping, whistling effort to inhale the air, was simply horrible, and it was plain that unless relief was very prompt the combat could not be maintained much longer. Death was near at hand, I had in my hypodermic case a solution of hydrochlorate of apomorphia, containing one per cent. of the salt, and without hesitation I injected five (5) minims of it under the skin of the arm. I then directed the father to take the child in his arms and hold him face downward, and, with my watch in hand, I awaited results. In two minutes and fifty seconds, almost without an effort, copious vomiting came on and a membranous cast of the larynx and trachea was expelled. *Per saltum*, as if by magic, the terrifying and urgent symptoms disappeared, and a new lease of life was taken by my little patient. The subsequent treatment of the case I need not detail here, the patient making a quick recovery.

My object in transcribing the above is to emphasize the statement made by Ellis (Diseases of Children, Wood's Library Ed., pp. 104–5), that "apomorphia is an excellent emetic in croup, in doses of one-fortieth of a grain"—though the dose used by me was double this amount.

Frank L. James, Ph.D., M.D.

Osceola, Ark., April 18, 1879.

## ERGOT IN THE TREATMENT OF PNEUMONIA.

To the Editor of The Medical Record.

Sir:—Having noticed articles in recent numbers of the Record, on the treatment of pneumonia in Bellevue and the Episcopal hospitals, with, in the former, a rather discreditable mortality, I am induced to make known, through the Record, a remedy which, to my knowledge, has not previously been employed in the treatment of this disease, and which, in ten cases, has yielded better results than any other treatment.

The value of ergot in hæmorrhage from the lungs has long been appreciated, and, from its therapeutic action, I have for years been persuaded of its equal efficacy in pneumonia; but not until this winter did I venture to depart from the "orthodox" treatment and employ it.

In all of the ten cases the "rusty" sputa was speedily and permanently arrested, and the attack in half the cases aborted; in the others, so shortened as to recover in six or seven days.

This remedy acts as promptly in pneumonia as in hæmoptysis, whether used hypodermically or "per ora," and in a few hours arrests the "rust" by relieving the intense congestion on which it depends.

I usually combine it as follows:

℞. Fl. ext. ergot.....f. ʒ iv.
Tr. digitalis.....f. ʒ j.
Plumbi acetatis.....gr. vj.
Aqua cinnamomi.....ad. f. ʒ ij.
M.

Sig. Give a tablespoonful every two hours until bloody sputa stops—then twice a day.

I begin the treatment by an antipyretic dose of quinine—from 40 to 60 grains—which, in connection with the ergot mixture, equallizes the pulmonary circulation, relieves the congestion and inflammation, and the patients recover in about half the time required by other modes of treatment.

Firmly believing that this treatment far excels all others in its rapidly beneficial results, I present it to the profession for trial. Respectfully,

J. T. Wells, M.D.

Bakersfield, Cal.

## PERINEAL AND UTERINE LACERATIONS.

To the Editor of The Medical Record.

Sir:—Reflex uterine action as a cause of perineal and cervical lacerations is being more clearly recognized now than ever before. Our advance in physiology enables us to deal more intelligently with nature's processes in parturition where this reflex force is an important factor for good or evil, and for evil of course, when a laceration occurs. My attention was called to this subject in attending a primipara in premature labor at the seventh month. On entering her room, I supposed I was almost too late, as she was having the characteristic pains that attend the passage of the head through the outlet. On examination I found

the bag of water pressing strongly against the perineum and os externum, but in the interval that the dilatation of the os uteri was not over one inch, it being a case of polypoid prolapse of the membranes. At the next pain I ruptured them, with the effect of stopping the expulsive effort, and the labor went on with the ordinary dilating pains. Now, what was the cause of the expulsive effort? Why, simply reflex action caused by pressure of the bag of water on the perineum. This being the case, it brings up that questionable practice of supporting the perineum to prevent laceration, when that very pressure or support by reflex action increases the expulsive effort and makes a laceration more imminent. Under such support, "secundum artem," is it any wonder that Simpson should have been chagrined at the number of perineal lacerations that occurred in his practice, and when unwittingly the preventive means proved to be the cause of the disaster? Though formerly taught to support the perineum, I now *religiously* let it alone, merely restraining too quick advance by direct pressure on the head, thus causing it to recede between pains when it would not otherwise do it.

That we should assist nature in all cases, and beware of meddlesome interference, brings me to notice the cause of lacerations of the cervix. That they are often the result of reflex force I am quite certain, and that the extra force that causes the laceration is generated by a too early rupture of the membranes. Physicians are so often impatient of delay that, to expedite matters, they rupture before there is full dilatation. At first nature seems somewhat surprised at the intrusion, and makes a short halt, but head-pressure brings her to her senses through reflex action, and the pains are largely increased in force, and with this increase comes a laceration of the cervix. When pains are deficient in power the os may be irritated by pressure with the finger, without rupturing the membranes, which should be left intact till nature ruptures them, or indicates that she has not power to do so.

J. M. WARD, M.D.

CORNELIA, MO.

# New Instruments.

## A DOUBLE CANULATED NEEDLE.

BY D. A. CURRIE, M.D.,

ENGLEWOOD, N. J.

THIS is a new instrument; it is of very simple construction, consisting of two hollow, curved needles, with bevelled points, and handles attached, as may be seen by Fig. 1, in the accompanying woodcut, which shows the instrument *closed*. Fig. 2 shows it open, with the suture passed through the needles. The intention was to use wire sutures only, but reference to Fig. 1 shows a thread (so to speak) about to be drawn through by means of a fine flexible hook, thereby inducing the introduction of silk sutures perfectly easy.

The general modus operandi of this instrument will immediately suggest itself to the gynæcologist and surgeon without my entering more fully into detail. However, I hope the brethren will not rate me an enthusiast when I claim that a very important desideratum has been attained in the completion of the double canulated needle for several reasons, viz., it saves much valuable time and patience; it renders the operations of vesico- and recto-vaginal fistulas comparatively easy. Both (edges or lips) are transfixed at exactly opposite points, just where they are desired, and simultaneously, and without distortion of either lip.

It is so perfectly adaptable in general shape, size, etc., as to be used within very small compass. It also

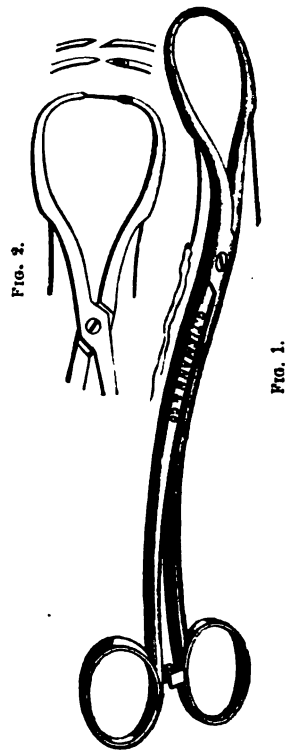

FIG. 2.

FIG. 1.

twists the suture when wire is used. The only parts of the operation that the skilful manipulator cannot do with it, is to cut the wire or to pare the edges of the fistula. In twisting the suture, unnecessary strain upon the tissues should be prevented by means of a tenaculum, held so as to protect them. The following case of lacerated cervix uteri will corroborate my statement:

The lady had suffered from extensive laceration to the right and left, with cystic ectropium of the cervix left since the birth of her last child, five years previously. The general pelvic ache and neuralgic pains from which she suffered during menstruation were excessive. Shreds of a membranous appearance would also be thrown off during this time, accompanied with a very offensive fetor, which would continue until menstruation ceased, when both the shreds and offensive odor would disappear.

The uterus was much hypertrophied, and retroverted in about the second degree; its depth was three and a quarter inches, with a glairy *muco-purulent* discharge almost constantly from the distorted os. She was subjected to local treatment for three months, by which the general condition of the organs was improved, and an operation for the repair of the laceration was performed in the usual manner, with this exception, that the *double canulated needle* performed a very important part of the operation; the result of which was complete union, leaving to all appearances a virgin os.

Within the short space of four months the womb was reduced to two and three-quarter inches in

depth, the pelvic ache and neuralgic pains had almost disappeared, together with the shreds of membrane and accompanying fetor.

She at present is, to use my own language, "perfectly well."

In conclusion, I safely say that, after having tested this instrument in a case of recto-vaginal fistula with equally gratifying results, I feel warranted in giving it this strong recommendation to the medical fraternity in general, and the gynæcologist in particular.

The instrument was made for me by Mr. Stohlmann, of Geo. Tiemann & Co., New York.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 6 to April 19, 1879.*

JANEWAY, J. H., Major and Surgeon. Detailed as member of the Retiring Board in session in New York City, vice Surgeon J. H. Bill, hereby relieved. S. O. 92, A. G. O., April 16, 1879.

O'REILLY, R. M., Capt. and Assist. Surgeon. Relieved from duty at Charleston, S. C. (post discontinued), and to accompany the command to McPherson Barracks, Atlanta, Ga. S. O. 63, Dept. of the South. April 11, 1879.

ELBREY, F. W., Capt. and Asst. Surgeon. Relieved from duty at Oglethorpe Barracks, Savannah, Ga. (post discontinued), and to accompany the command to McPherson Barracks, Atlanta, Ga. S. O. 63, C. S., Dept. of the South. Granted leave of absence for six months on surgeon's certificate of disability. S. O. 89, A. G. O., April 12, 1879.

HARVARD, V., 1st Lieut. and Asst. Surgeon. To accompany 18th Inf. to Fort Assiniboine, and on arrival to be relieved from further duty there and return to Dept. of the South. S. O. 35, C. S., Dept. of Dakota.

REED, W., 1st Lieut. and Asst. Surgeon. Leave of absence extended 15 days. S. O. 38, Div. of the Pacific and Dept. of California, April 9, 1879.

PERLEY, H. O., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort Pembina, to proceed to Bismarck, report for duty to Commanding Officer 18th Inf., accompany that regiment to Fort Assiniboine and take station at that post. S. O. 35, Dept. of Dakota, April 12, 1879.

PRESBYTERIAN HOSPITAL—ELEVENTH ANNUAL REPORT.—There have been 555 cases treated in the hospital during the past year, with a mortality of 7.02 per cent. An exceptionally large number of important surgical operations are recorded. Nineteen tumors were removed, including an epithelioma of the tongue and sarcoma of superior maxilla. There were two lumbo-colotomies, an excision of hip, ligation of lingual and femoral arteries, lithotrity, etc. A very complete report is given by the pathologist, Dr. Satterthwaite.

ST. MICHAEL'S HOSPITAL—ANNUAL REPORT, Newark, N. J., Jan. 1, 1879. This hospital, with a capacity of between 70 and 80, has treated 891 patients during the past year, its out-door department including over 5,000 more. Two amputations of the thigh, partial removal of lower jaw, removal of tumor from the neck, are some of the more important operations performed.

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending April 19, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| Apr. 12, 1879. | 0 | 8 | 178 | 1 | 28 | 25 | 3 | 0 |
| Apr. 19, 1879. | 0 | 3 | 188 | 3 | 22 | 33 | 0 | 0 |

REDUCED RAILWAY FARE TO ATLANTA, GA., FOR THE DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION AND THEIR FAMILIES.—The Piedmont Air-Line (Penn. Central, by way of Richmond, Danville, Charlotte) offer tickets from New York, and return, for $37.25. Pullman car all through, and for the delegates only, if a sufficient number apply. Two through trains daily, leaving Jersey City at 10 P.M. and 8.20 A.M., to arrive at Atlanta in thirty-eight hours. On Sunday no morning train. Passengers leaving by 10 P.M. Saturday, 3d May, may stop ten hours on Sunday either at Washington or Richmond, take the express train in the evening, and arrive at Atlanta 10.30 P.M., on Monday, the 5th May; a good arrangement as to convenience and seeing the scenery of the country.—Apply J. L. Waldrop, Gen. East. Passage Agent, 8 Astor House, New York.

PRIZE OF THE ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.—This prize of $500, for an original essay on some subject connected with medicine or surgery, is open only to the competition of the Alumni of the College of Physicians and Surgeons of New York. The conditions upon which the prize will be awarded are as follows: 1. The subject is left to the option of the competitor. 2. The essay must present sufficient original experimental or clinical observation to make it a useful contribution to medical knowledge. 3. The essay, designated by a motto, must be sent to a member of the Committee on Prize Essays, accompanied by a sealed envelope, inscribed with the motto, and containing the name and address of the author, on or before February 1, 1880. Committee: A. Brayton Ball, M.D., 38 West 36th St.; T. A. McBride, M.D., 12 East 28th St.; Robert F. Weir, M.D., 37 West 33d St.

THE DEATH-RATE IN RUSSIA.—In the year 1877 Russia seems to have had the heaviest death-rate of any country that keeps mortality statistics. According to the recent report of the Medical Bureau, in a population of eighty millions deaths occurred at the rate of from 30 to 50 per thousand. Diphtheria caused the largest mortality, next typhus, and then small-pox.—*Lancet.*

TAPE-WORM IN A CHILD AGED TWENTY-TWO MONTHS.—Dr. N. R. Derby, of Bergen Point, N. J., writes: I notice in the RECORD of Jan. 18, 1879, the report of a case of tape-worm in a child three years old. Having had recently a case still younger, I send particulars for your disposal.

Baby H—— was 22 months old when the mother noticed that the passages were studded with white patches, and at times almost entirely composed of

them. At length becoming alarmed, she brought me some of these specimens for examination, which I found to be pieces of Tænia solium. The child lives near by, and was under my observation nearly every day. It seemed to be in perfect health. The following was ordered given on an empty stomach:

| | |
|---|---|
| ℞. Ext. felicis liq. | ℥xxx. |
| Syr. zingib | ʒ ij. |
| Mucil. trag | ʒ ij. |
| Aquæ | ʒ j. |

M.

One-half to be given for a dose and repeat. This brought away patches of two and three feet in length for a time. As the pieces began to appear again after a few weeks, pumpkin-seed tea was freely given while the child was fasting, followed by castor oil. This was efficient, and brought away twenty feet and the head. Adding to this what the parents had already secured and saved at my request, I find by measurement forty-five feet, and the parents are confident that at least half that much was lost before the child was brought to my notice.

Dr. George B. Wood's Bequests.—The will of the late Dr. Wood has just been admitted to probate and contains, among numerous other items, the following: His pathological cabinet he leaves to the Medical Department of the University of Pennsylvania, with the understanding that it is to be under the immediate supervision of the Professor of the Theory and Practice of Medicine, and that the sum of $200 is to be appropriated annually for its preservation and repair out of the increase of the money left to the University.

The bond and mortgage of the College of Physicians, which he held, amounting to $5,000, he presents to the society. He also bequeaths to it all his books on science and medicine, and appropriates the sum of $10,000, the income of which is to be employed in paying the salary of the librarian of the society, and in heating, lighting, and repairing its building.

$50,000 are left for the permanent endowment of the Auxiliary Faculty of Medicine in the University of Pennsylvania. His medicinal plants he leaves to the Medical Department of the University of Pennsylvania, placing them under the care of the Professor of Materia Medica and Therapeutics, and $5,000 is set apart for the construction of a botanical garden and conservatory as an adjunct to the same chair.

$75,000 are bequeathed to the University Hospital, for the foundation of a free ward of twenty beds, to be called the "Peter Hahn Ward," in memory of his father-in-law.

The Children's Hospital and Philadelphia Dispensary receive $5,000 each.

A certain part of the income accruing from the cranberry lands, in New Jersey, belonging to Dr. Wood, is to be invested yearly in the name of the University of Pennsylvania, and when this investment amounts to $500,000, it is to be divided, half going to the medical department and half to the other departments—law, academical, and scientific—of the University.

In consideration of his numerous bequests to this institution, it is stipulated that all patients from Cumberland Co., New Jersey, up to a certain limit, applying for treatment at the hospital, shall receive such treatment and their beds and board in the wards gratis.

Stevens' Triennial Prize, 1882.—This prize, established by Alexander H. Stevens, M.D., amounts to two hundred dollars. The subjects for the next prize are as follows:

I. *Lesions of the Brain, in connection with the two Forms of Diabetes.*

II. *Diphtheria, in its Relations to Membranous Croup.*

The competing essays, on either of the above subjects, should give an account of our present knowledge, and also the results of personal investigation. They must be transmitted to the President of the College of Physicians and Surgeons, New York, on or before the first day of January, 1882. Each essay must be designated by a device or motto, and must be accompanied by a sealed envelope, bearing the same device or motto, and containing the name and address of the author. The envelope belonging to the successful essay will be opened, and the name of the author announced at the Annual Commencement of the above-named College, in March, 1882. This prize is open for universal competition.

J. C. Dalton, M.D.,
*Secretary of the Commission.*

Diastased Iron.—This latest pharmaceutical novelty is prepared by soaking cress seeds in a solution of iron. The seeds of course absorbed the solution and begin to sprout. The process is then stopped, and the seeds dried and sugar-coated. Diastase is of course formed when the seed begins to germinate. Arsenic and iodide of potassium are diastased in a similar manner.

Nutritive Value of Peptone.—At a meeting of the North-western Medical and Surgical Society, held March 19, 1879, Dr. George B. Fowler gave a preliminary report upon the results of recent researches undertaken by him regarding the alimentary value of digested meat. The results of his experiments are very satisfactory, and look towards the introduction of peptone as the proper nutritive material in cases where hitherto such adventitious substances as beef-extracts, milk, and blood have been resorted to. It is especially adapted, Dr. Fowler maintains, for intra-venous injection, and his successful experiments upon animals were verified by a trial upon the human subject. This important and practical matter will be more fully elaborated in a paper shortly to appear.

## BOOKS RECEIVED.

The Anatomy of the Joints of Man. By Henry Morris, M.A. M.D., Lond. Philadelphia: Lindsay & Blakiston.

Essays on Surgical Anatomy and Surgery. By John A. Wyeth, M.D. New York: W. Wood & Co. 1879.

Auscultation and Percussion. By Herbert C. Clapp, A.M., M.D. Boston: Houghton, Osgood & Co., 1879.

Wood's Medical Library. Frerichs on Liver. Vol. ii. 1879.

A Treatise on Therapeutics, &c. By H. C. Wood, Jr., M.D. Third Edition. Philadelphia: J. B. Lippincott & Co., 1879.

A Practical Treatise on Surgical Diagnosis. By Ambrose L. Ranney, A.M., M.D. New York: W. Wood & Co., 1879.

On Diseases of Abdomen, &c. By S. O. Habershon, M.D., London. Philadelphia: H. C. Lea. 1879.

A Treatise on Gout and Rheumatism. By Peter Hood, M.D. Second Edition. Philadelphia: Lindsay & Blakiston, 1879.

On Spermatorrhœa. By Roberts Bartholow, M.D. Vol. II. W. Wood & Co., 1879.

# Original Communications.

## THE ADIRONDACK REGION AS A THERAPEUTICAL AGENT IN THE TREATMENT OF PULMONARY PHTHISIS.

(Read before the Medical Society of the State of New York.)

By ALFRED L. LOOMIS, M.D.,

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE IN THE MEDICAL DEPARTMENT OF NEW YORK UNIVERSITY, N. Y.

PART II.

CASE VII.—Miss C——, aged eighteen, in the spring or early summer of 1875 reached the Adirondacks in a very feeble condition. She had had a cough for six months, with frequent pulmonary hemorrhages, attended by fever, loss of flesh and strength. Physical examination of the chest revealed dulness on percussion, bronchial respiration, and crackling râles at the apex of the right lung. Her improvement began at once; at the expiration of three months she had gained eleven pounds in weight, had no cough, and had so regained her strength as to be able to take active out-of-door exercise. In early fall she returned to her home, and has there remained in good health.

In this case the pulmonary consolidation was evidently catarrhal in its nature, and of recent date. That she came to the Adirondacks in the earlier stages of the disease probably had much to do with her rapid and complete recovery.

CASE VIII.—Mr. B——, aged thirty-two, with a decided hereditary predisposition to phthisis, took up his residence in the lake region of the Adirondacks in the summer of 1875. After he left home, before he reached the Adirondacks, he had a severe hemorrhage. For three months after his arrival he was in a critical condition, had severe cough, frequent hemorrhages, fever, and rapid emaciation. He did not begin to improve until late in the fall, after which time his improvement was steadily progressive. During a two years' residence in the region he fully regained health and strength, his cough ceased, and in August, 1878, I could find no trace of disease in the lungs, except old pleuritic thickenings and adhesions at the apex of the left lung. In September, 1878, he left the Adirondacks.

During his first year's residence in the Adirondacks no physical examination was made, but he stated that previous to his coming into the region his medical advisers had told him that his lungs were extensively diseased, and that he had come with a "forlorn hope." His disease commenced as a "severe cold," and unquestionably his case was one of catarrhal phthisis.

CASE IX.—Dr. T——, aged thirty-two, with marked hereditary tendency to phthisis, came to the Adirondacks in the summer of 1875. For ten months he had been ill with well-marked phthisical symptoms. The upper third of the right lung was consolidated, with circumscribed liquid râles in the supra-scapular fossa. At the apex of the left lung there was exaggerated rude respiration, but no râles. He remained four months, in camp the greater portion of the time. As he improved he became restless, and could not be induced to longer remain. His weight was now 148 pounds; he had gained twelve pounds, and had no cough. After leaving the Adirondacks he went South, but returned in the spring in a most enfeebled condition; weight 127 pounds, with pallid countenance, difficult breathing, and so weak that he was obliged to lie down the greater portion of the time. The entire upper lobe of the lung on the right side was consolidated, and abundant râles were heard throughout the consolidated portion. The respirations at the apex of the left lung had become markedly bronchial in character. He began to improve, and by the first of December had regained his appetite and strength. Again he became restless, left the Adirondacks, went to Colorado and California, was twice near death, and in early summer returned to the Adirondacks "in extremis," with a large cavity in his right lung, and commencing softening in his left lung. Having thrown away his chances for recovery, he died in early winter.

A series of mistakes marked the course of this patient. A short time previous to his death he stated to me that in attempting to follow the advice of his Philadelphia physician, who recommended a warm climate, and that of his New York medical adviser, who recommended a cold climate, he had made the result a failure.

As we review his history, it seems to me that we are warranted in coming to the conclusion that the result might have been different had he remained in the Adirondack region for the two or three years succeeding his first visit.

CASE X.—Mrs. M——, aged twenty-eight, with no hereditary tendency to phthisis, consulted me in the fall of 1876. She had a cough which was paroxysmal in character, with little expectoration. For several months she had been losing flesh, had had daily fever and night-sweats; at times she had suffered from severe attacks of dyspnœa, which were followed by an expectoration which she termed "stringy." Physical examination revealed pulmonary consolidation posteriorly at the apex of the right lung, with sharp bronchial râles over the consolidation. At different points over the chest dry and moist râles were heard, and I made the diagnosis of probable fibrous bronchitis, with pulmonary consolidation at the apex of the right lung. I advised her to spend the winter in Asheville, N. C., where she obtained little if any relief. During the winter she expectorated a number of well-formed bronchial casts. On her return, I found her more feeble than when I first saw her, and the area of lung consolidation increased.

Following my advice, in June she went into the lake region of the Adirondacks, remained nearly a year, and entirely recoved from the bronchitis and pulmonary consolidation.

This case was one of well-marked plastic bronchitis, with circumscribed consolidation at the apex of the right lung. When we recall the fact that the majority of cases of chronic plastic bronchitis are followed by phthisis, and terminate fatally, the complete recovery reached in this case is somewhat surprising.

I would call attention to the fact, that in this case the climate of the Adirondacks produced such different results from that of Ashville, N. C.

CASE XI.—Miss F——, aged nineteen, of a non-phthisical family, consulted me in March, 1875, having taken cold the previous January. She was rapidly losing flesh, had an almost constant hacking cough, night-sweats, with other well-marked phthisical symptoms. On physical examination, I found complete consolidation of the upper third of the right lung, with crackling râles posteriorly. Evening temperature 103°, and pulse feeble. She had lost ten pounds since January, and was easily exhausted. Ten days after I first saw her she had a profuse hemorrhage; in two days this was followed by a second. She was so reduced in strength by these hemorrhages, and her

general symptoms became so aggravated, that unless soon arrested it was evident her pulmonary disease would progress very rapidly, and soon terminate fatally; I feared acute phthisis.

In the early part of April she went to Washington, was carried to and from the cars; she remained six weeks, with very little improvement in her condition, the entire upper lobe of the right lung having now become involved in the pulmonary consolidation. The early part of July she reached the Adirondacks. She rapidly began to improve, and when I examined her the following October, she had gained twenty pounds in weight, coughed only in the morning after rising, had no fever, and had a pulse of 80. Bronchial breathing was heard posteriorly over the area of the pulmonary consolidation, while quite extensive pleuritic adhesions and thickening could be detected in front. She spent portions of the summer and fall months in the Adirondacks for the two succeeding years, and now regards herself perfectly well, and is so regarded by her friends.

The pleuritic changes which occurred during the active progress of the disease alone give evidence of her former pulmonary disease. When this patient first went to the Adirondacks, not only did her disease involve a large amount of lung-tissue, but her general condition was very unpromising, her stomach was exceedingly irritable, and her emaciation was rapid and her anæmia extreme.

Case XII.—Mrs. P——, aged forty, from a non-phthisical family, first came under my observation in March, 1877. Since 1869, she had suffered with phthisical symptoms; at times her case had been regarded as hopeless. Physical examination revealed fibrous induration of the upper lobe of the right lung, with the physical signs of cavity under the right clavicle, and pleuritic thickening over the entire lung. Pulse 100, feeble and easily accelerated. Temperature 101°; extreme dyspnœa consequent upon exertion. She had night-sweats, was extremely anæmic, not markedly emaciated, but her weight was less than when in health. Cough paroxysmal and violent, with slate-colored expectoration; her appetite was capricious, and her disease had made marked progress since the early part of January. In early summer she went to the lake region, where she remained until fall. In her general health the improvement was very marked; but little change took place in the physical signs. During the winter there was little change in her condition. Early the following summer (summer of 1878), she went to the Adirondacks and into camp, where she remained until the following October. Not only was the improvement in her general health very marked, but her cough almost entirely disappeared, and her general physical condition was better than it had been since the commencement of her disease. The fibrous induration remained at the apex of the right lung, although vesicular breathing could be heard over the remaining portion of the lung.

When I first examined this case I regarded it as one of fibrous phthisis, and only hoped for that complete cicatricial process to be developed which renders the diseased lung-tissue inactive. While, as yet, she has not reached such a condition, her steady improvement without any new lung-tissue becoming involved, and the absence of any evidence that degenerative processes have been developed in the lung-tissue already involved, leads me to believe that if the same climatic influences be continued, which during the past two years have produced such beneficial results, at length the desired result may be obtained.

Case XIII.—Mr. S——, aged thirty-one, with a good family history; at my suggestion went to the Adirondacks in the early part of the summer of 1876.

He first consulted me in the fall of 1875, had then been ill about one year; had well-marked phthisical symptoms. He had received a most unfavorable prognosis from medical men in this country and in Europe. A physical examination revealed quite extensive consolidation of the apex of the right lung, with sharp crackling râles. I advised him to spend the winter in Asheville, N. C. On his return in early summer, I found that although his general condition had somewhat improved, his pulmonary disease had made considerable progress. Soon after his arrival in the Adirondacks he was seized with an acute cystitis, which prostrated him very much. Although he remained nearly two years in the lake region, his pulmonary disease steadily but slowly progressed. In the spring of 1878, in an extremely debilitated condition, he returned to his home in Ohio.

In this case, the disease from its onset steadily progressed, and the diagnosis of tubercular phthisis which was made the first time I saw him, was confirmed by his subsequent history. While he was in the Adirondack region, although at times he seemed to be improving, the periods of improvement were of short duration, and each exacerbation of fever left him in a more and more enfeebled condition. With each exacerbation of fever, new areas of lung-tissue became involved. At the time he left for his home in Ohio, suspicious bubbling sounds were heard over the original seat of his disease, and his respirations were amphoric in character.

Case XIV.—Mr. L——, aged twenty-two, with well marked phthisical symptoms, had been ill six months, when, in the summer of 1877, he took up his residence in the Adirondacks. At the time of his arrival his cough was constant, his expectoration was of a greenish color, and of tenacious consistency. He was rapidly losing flesh, had night-sweats, and shortness of breath upon slight exertion. Physical examination revealed consolidation at the apex of the right lung, with fine crackling râles in the supra-scapular fossa. He remained about one year, spending the summer and early fall in camp. His cough disappeared, and he gained fourteen pounds in weight. Ten months after his arrival no abnormal sound could be heard in his lungs, except feeble respiratory murmur, and pleuritic creaking at the end of a full inspiration at the former seat of the pulmonary consolidation. He has continued perfectly well to the present time, and is now studying law. This was a case of catarrhal phthisis in its first stage, in which, like the previous case of which I have made mention, the recovery from the pulmonary disease was rapid and complete.

Case XV.—Mrs. G——, of a non-phthisical family, first consulted me in April, 1878. She had suffered with well-marked phthisical symptoms for six months, the result of a cold contracted the previous summer while she was in a debilitated condition, which had been followed by a cough. Physical examination of the chest revealed consolidation of the upper two-thirds of the right lung, with circumscribed moist râles under the right clavicle with amphoric breathing. She was very feeble; had rapidly lost flesh; had night-sweats, loss of appetite, an almost constant cough, an abundant expectoration, with occasional spitting of blood, and dyspnœa upon slight exertion. Temperature in the evening, 103°; pulse, 110 to 120.

She went into the lake region of the Adirondacks in June, and returned the last of September. She made little or no improvement until the last of August; from that time she began to rapidly improve.

and has continued to gain flesh to the present time. She now weighs 38 lbs. more than before she went to the Adirondacks, and coughs only in the morning. Physical examination shows vesicular breathing over the seat of the former consolidation, except posteriorly, where the breathing is broncho-vesicular in character, and pleuritic creakings are well marked. No signs of cavity can be detected.

The improvement in this case did not commence until two months after she reached the Adirondacks; in fact, for a time the disease seemed to be progressing with some degree of rapidity. During this time she had two quite profuse hemorrhages. The changes in the diseased lung were so extensive, and of such a nature, that I did not hope for recovery. The increase in weight has been greater and more rapid than in any other case of phthisis which has come under my observation.

CASE XVI.—Mr. R——, aged thirty, of a phthisical family, began to cough in the winter of 1876. Two months after he began to cough he had a hemorrhage. Soon after the hemorrhage he began to have fever and to lose flesh. He first consulted me in May, 1876. He then presented the appearance of one in advanced phthisis. He was emaciated, had an evening temperature of 102° and 103°, and had great difficulty of breathing, becoming exhausted from the exertion attending the ascent of a flight of stairs. Physical examination revealed extensive consolidation of the upper lobe of the right lung. Distinct bronchial respiration could be neard from the clavicle to the upper border of the fourth rib. He went into the Adirondack region, where he remained a year. On his return to New York he presented the appearance of perfect health. He had no cough, and said he weighed more and felt stronger and better than he had for years. Physical examination revealed only pleuritic thickening over the former seat of the pulmonary consolidation. No physical examination of the chest was made from the time he went into the Adirondack region in early winter until his return to New York, one year later. He stated that his improvement commenced about three weeks after he reached the Adirondacks, and that every day during the winter months he spent from six to eight hours out of doors.

He has remained in New York until the present time, and has had no return of his phthisical symptoms.

CASE XVII.—Mr. A——, aged thirty-one, with a strong hereditary tendency to phthisis, had his first hemorrhage in Feb., 1877, after which he rapidly lost flesh and strength, and in June, when I first saw him, he was extremely emaciated and anæmic; had a constant hacking cough, with muco-purulent expectoration, and frequent slight hemorrhages. Temperature ranged from 100° to 103°; pulse never below 100, and easily accelerated. Physical examination revealed slight consolidation at both apices, with moist, bubbling râles in left supra-scapular fossa. He went to the Adirondacks in July, and remained nearly a year, during which time his disease slowly but steadily progressed. A physical examination in July, 1878, revealed a cavity at the apex of left lung, with infiltration of the entire left lung. I advised his return to his family.

In this case the diagnosis of tubercular phthisis was made at the first examination. The subsequent history and the uninterrupted progress of the disease fully sustained the diagnosis first made.

CASE XVIII.—Mrs. O——, aged thirty-four, with no hereditary predisposition to phthisis, first consulted me in May, 1878. She had coughed for six months, had repeatedly had hemorrhages. She went south during the winter of 1877–1878, where she did badly, rapidly losing flesh and strength, and had afternoon fever and night-sweats. Pulse 102° F., feeble and easily accelerated. Afternoon temperature 102.° She complained of dyspnœa on slight exertion, and became easily fatigued, was anæmic, had no desire for food, and was dyspeptic. A physical examination revealed consolidation of the upper third of the left lung, with bronchial râles and pleuritic adhesions over the entire left side.

In July she went to St. Regis Lake (Adirondacks), where she remained three months. Immediately she began to improve; the cough became less and less troublesome, her appetite returned, and she soon gained 14 lbs. in weight. By the first of September her pulse and temperature were normal, and by the first of October the only physical evidences of disease were slight pulmonary consolidation under left scapula, and pleuritic creaking in left infra-clavicular space. She has continued to improve since her return, and is now apparently well.

This was another case in which the rapid and continued improvement was unexpected. The general appearance and condition of the patient when first seen by me was unpromising. The perseverance or fixedness of purpose, and good sense of the patient, I believe had very much to do with her marked improvement. She remained out of doors nearly the whole of every day, took no risks, and made use of everything in her surroundings which would aid in bringing about the desired result.

CASE XIX.—Mr. M——, aged thirty-four, consulted me in the spring of 1877, having had a pulmonary hemorrhage. For the previous three months he had been rapidly losing flesh and strength, had fever, night-sweats, and was extremely anæmic. He had had cough with expectoration for more than a year. Physical examination revealed consolidation of the apex of the left lung as far as the lower border of the third rib, with quite extensive pleuritic changes and marked retraction of the left side of the chest. He had repeated hemorrhages, was confined to his room for several weeks, and it was the latter part of June before he was able to travel. Early in July he started for the Adirondacks. He presented the appearance of a person in advanced phthisis, and physical examination at this time detected marked retraction of the left chest and bronchial dilatation in the left supra-scapular space.

During July and August his improvement was very slight, and it was the latter part of August before he was able to go into camp. He remained about two months in camp, during which time he regained his normal weight, his strength returned, and he had great physical endurance. Late in the fall he returned to New York, presenting the appearance of one in health, although he still had cough and shortness of breath, and physical examination showed little change in the consolidated lung. His improvement continued until the following March, when he again grew worse, lost flesh, and had occasional fever. In May he had another slight hemorrhage. An examination of his chest showed an increase in the pulmonary consolidation since the previous examination; pleuritic adhesions and thickenings were detected over the whole of the left side, with more marked retraction of the left side. He again went to the Adirondacks, and remained in camp the greater portion of the summer and fall. He rapidly regained flesh and strength, and all his active phthisical symptoms again disap-

peared, excepting morning cough with expectoration. Little change could be detected in his physical signs. Unquestionably, this is a case of fibrous phthisis, and although while he remains in the Adirondacks he regains his flesh and strength, and the progress of the disease seems to be arrested, yet little or no improvement can be detected in the diseased lung.

CASE XX.—Miss H—— had her first pulmonary hemorrhage, which was quite profuse, in January, 1877. Within the week following this first hemorrhage she had frequent hemorrhages, averaging more than one per day. During the preceding year her physical and mental labor had been unusually taxing or severe, and she was not in her usual health. For several months she had suffered more or less from nasal, pharyngeal and bronchial catarrh. She first consulted me in June, 1877, at which time she presented all the symptoms of well-developed phthisis. She had constant cough, with muco-purulent expectoration frequently streaked with blood, was emaciated, had fever, night-sweats, loss of appetite, shortness of breath, etc.

A physical examination revealed consolidation of left lung from its apex down to the fourth rib, with abundant mucous râles over the left scapula. In the early part of July she went into the Adirondacks, and into camp. On her return from the region in November, I found her much improved; she coughed little, had no fever, had gained eight pounds in weight, could walk long distances without fatigue or shortness of breath. Physical examination showed marked diminution in pulmonary consolidation in the left infra-clavicular space; bronchial respiration and mucous râles were still heard over left scapula. She steadily improved until the middle of February, when she had a severe attack of influenza, from the effects of which she did not entirely recover, and June, 1878, found her in a worse condition than she was in June, 1877. Following the influenza, a pleurisy was established over the whole of the left pleura. This greatly increased her difficulty of respiration. June 11th she again left for the Adirondacks, went into camp July 1st, and remained in camp until October 20th. During the summer she had two slight hemorrhages, but she steadily regained her strength and weight, and seldom coughed. A physical examination, made the following November, showed entire absence of pulmonary consolidation at the apex of the left lung, and the only remaining physical signs of disease were pleuritic adhesions or thickenings over the upper third of the lung, with localized bronchial râles in the left supra-scapular fossa. Since November her improvement has been steadily progressive, she has the appearance of one in health, yet she has slight cough with muco-purulent expectoration; and physical signs of disease are still present.

The statement previously made in regard to the probable effect of a longer stay in the woods, holds true in this case.

A brief summary of the foregoing cases gives the following results:

Of the twenty persons who have tested the therapeutical power of the climate of the Adirondack region, by giving it an extended trial, ten have recovered, six have been improved, two have not been benefited, and two have died.

The ten cases of recovery were those of catarrhal phthisis; of the six cases in which improvement took place, four were those of catarrhal phthisis, and two were cases of fibrous phthisis. The two cases in which o benefit was received from a stay in the region were es of tubercular phthisis, in both of which the disease steadily progressed, and at no time could it be said that it was even temporarily arrested. In both cases of fibrous phthisis, extensive retraction of lung had taken place, with bronchial dilatation and compensatory emphysematous developments. Exercise could not be taken, for very slight physical exertion brought on attacks of severe and frequent dyspnœa, and the severe attacks of coughing interfered with digestion and nutrition. In both cases, failure of the right heart was well marked. In both, the improvement manifested itself in the gaining of flesh and strength, rather than in any change in the lungs which could be appreciated by physical examination. I believe these cases would have done better in Colorado.

Those cases of catarrhal phthisis which were improved but not cured were those in which the pulmonary changes were extensive, or had reached the stage of excavation—cases in which complete recovery is always problematical.

In all these cases the improvement did not commence immediately—not until some time after the individual had taken up his residence in the region; and when it did commence, it was not constantly progressive. Each case had a long history of getting better and worse, but each advance toward recovery was more marked than the former. Whether these cases will or will not reach complete recovery is a question, but I am certain that a permanent residence in the region greatly increases the probabilities of such a result, from the fact that in those cases which have come under my observation a temporary absence from this region has been followed by such sad results. In all the cases of catarrhal phthisis which have reached recovery, either the pulmonary changes were not extensive, or they were of recent origin, and improvement commenced soon after reaching the Adirondacks. The results obtained established the fact that a large proportion of the cases of this variety of phthisis, if they have not passed the first stage, or stage of consolidation, can recover.

The two cases that terminated fatally were cases of catarrhal phthisis. Although, when they came into this region, their lungs were extensively diseased, they were much benefited during their stay, and it seems to me that impatience and imprudence had very much to do with the fatal termination.

Results show that the climate of this region is better adapted to the treatment of catarrhal phthisis than of any other variety. I believe fibrous phthisis does better in higher altitudes—for instance, in Colorado.

My experience leads me to believe that climate has little beneficial effect upon tubercular phthisis.

For some time I have believed—in fact, I became convinced soon after I began to study carefully the effect of climate upon phthisical invalids—that a larger proportion of such were benefited or cured in a cold than in a warm climate.

The testimony of those who have spent a winter or more than one winter in the Adriondacks is, that improvement was far more rapid during the winter than during the summer months; and I have found by physical examination of the lungs, that the arrest in the morbid processes and the establishment of the curative processes was more marked during the winter than during the summer months.

I shall have accomplished my purpose, if by this hastily prepared paper I shall have awakened in my professional brethren the spirit of investigation as regards this extensive health-restoring region within the boundaries of our own State, which we have been passing by, while we have sent phthisical invalids far from home and friends to regions far less restorative.

## SCARLET FEVER IN CHICAGO.

By HENRY M. LYMAN, M.D.,

PROFESSOR OF PHYSIOLOGY AND OF DISEASES OF THE NERVOUS SYSTEM, RUSH MEDICAL COLLEGE, CHICAGO.

Having lately read in the Medical Record an interesting editorial summary of the facts regarding scarlet fever, gathered from a study of its recent prevalence in New York, it has occurred to me that a review of our own experience in Chicago may not be without value.

I have now before me a chart compiled from the official records of the Health Office, which exhibits by the graphic method the course of the mortality from scarlet fever in this city for every month during the past twenty-seven years. It admirably exhibits, with a degree of clearness which no mere columns of figures can illustrate, the uniformity of the action of the laws which control this mortality. In a large community like ours, the disease is always present, but its prevalence, and the consequent aggregate mortality, are strictly dependent upon the existence of a *susceptible* population. During the occurrence of what is called an epidemic, the disease reaches and smites down all, or nearly all, those members of the community who have not previously been rendered tolerant of its influence. The epidemic then dies out like a fire which has exhausted the stock of combustible material. Relieved from the pressure of contagion, the natural increase of population soon furnishes a new quota of susceptible individuals. The expiring embers of the conflagration flame up again, and the disease becomes increasingly frequent until another period of epidemic prevalence and subsequent exhaustion is evolved. This rhythmic course of the mortality from scarlet fever is admirably shown by my chart. It, moreover, brings to light the fact that the periods of greatest epidemic mortality succeed each other with remarkable uniformity at intervals of about seven years. This fact is related to the observation that the most susceptible period of life is between the first and the seventh year. Next to these causes, the greatest prominence must be assigned to the condition of the weather. The disease is partial to cold climates, and its greatest severity is experienced during the coldest months of the year. Excessive weather of any kind always produces an increase of mortality during its continuance. The chart, therefore, exhibits a notable increase of mortality during stormy weather in the spring and fall of the year, or when a period of unusual heat depresses the population during the summer months. Everything, in short, which makes life more difficult in a cold climate, tends to increase the mortality of scarlet fever. This fact is still further illustrated by a reference to the graphic chart. It shows that during times of rapid expansion of the city by immigration the ratio of mortality to the whole population has been greater than during periods of a quiet and natural increase. In other words, just in proportion to the degree in which people become thoroughly adjusted to their surroundings by long residence, or, better, by hereditary descent in the same locality, will their susceptibility to scarlet fever diminish. Consequently, the larger and the older the city, the greater the immunity from scarlet fever.

The effect of governmental intervention for the purpose of limiting the ravages of the disease has been also clearly illustrated by this chart. Previous to the year 1877, scarlet fever had been allowed to take its own course, so far as sanitary authority was concerned. The disease would gradually increase for about a year, reaching the climax of mortality during the most inclement month of the winter next following the outbreak. It would then begin suddenly to decline—rapidly falling off during the following year, with only such minor exacerbations as were directly attributable to the weather, until about eighteen months after the epoch of greatest severity, when the minimum of mortality would occur. This was always during the most salubrious weather of the early summer. The year 1876 was our last formative period. During the entire year the mortality kept steadily increasing, but with a lower ratio relative to the aggregate population than had been known in previous epidemics, notably, that of 1863, for example. Certain parties who were interested in the sale of alleged specifics against scarlet fever succeeded at this time in getting the ear of the public, and through the connivance of the newspapers, the community was wrought up to a terrible state of excitement about a commonplace epidemic in which it was clearly shown by the extensive investigations of Prof. C. W. Earle and others that the rate of mortality did not exceed ten per cent., and was probably less than nine per cent. The community, however, was beside itself with terror, and the aid of the civic government was demanded. A very worthy and energetic gentleman was made Commissioner of Health; the laws were doctored so as to give him a liberal handful of discretionary—that is, *despotic*—power, and it was announced that within sixty days scarlet fever would be unknown in Chicago. The climax of mortality had been passed, and the epidemic had commenced its usual rapid decline when the new officials were installed. They commenced operations with a stringent vigor that was as magnificent as it was frightful. All physicians were ordered to report every case of scarlet fever, and those who neglected to do so, and could be caught, were heavily fined. Every infected house was placarded with a tremendous red sign, recalling vividly to mind the horrors of the plague in London. There was a great deal of loud talk about confining people to their houses in case of exposure, but this project soon had to be given up, for the simple reason that people would not stay in their houses. Isolation and disinfection were diligently preached, and were carried into practice with unheard of zeal. In fact, we were never before so uncomfortable since the foundation of the city.

Well, what was the outcome of all this pucker? The epidemic went on its accustomed way, paying no more heed to the wrath of man than if it had been a West Indian hurricane. Favored by a remarkably mild summer and winter, during the year subsequent to the climax of mortality, there was less disturbance of its course by fluctuations of the weather than has been sometimes remarked; but, otherwise, its progress was unchanged, and the minimum of mortality was reached just eighteen months after the turning-point of the epidemic had been passed. The mortality then began again to increase, and has been gradually working up ever since, exactly as had been predicted by our eminent ex-sanitary superintendent, the well-known Dr. John H. Rauch. Our chart does not give the slightest sign to indicate that anything has in any way interfered with the natural progress of the disease; and yet a great effort was honestly and earnestly made to "stamp out the epidemic." But human nature is stronger than human law. At first, there seemed to be no escape. When a poor devil found his business destroyed, and the bread kept out of his mouth by a placard on the door of the little den where he lived and struggled to make a living for his wife and chil-

dren, expostulation and entreaty were of no avail. The laws of Illinois were as inflexible and as irrevocable as the laws of the Medes and of the Persians. But the approach of election-time wrought wonderfully to mollify the hearts of the great ones of the earth, so that now, when a big politician finds scarlet fever in the bosom of his family, it is discovered that the laws of Illinois confer large powers of discretion upon sanitary officials; so the odious placard is in such cases nailed against the *inside*, instead of the outside, of the door. From that favored position it is said that it diffuses throughout the entire household a healing influence, which is utterly lost in space when the warning card is displayed in the usual way.

What are the lessons which may be derived from this experience? I will not repeat the conclusions which have been so forcibly set forth by the editor of the MEDICAL RECORD. I will only add the following reflections:

I. We may see an illustration of the ineffable folly of trying to ignore the forces of nature and the laws which control the universe. Winds, and rain, and cold, and heat, and the prime causes of disease are beyond the power of man. We can intervene to a very limited degree; and often when we think we do the most, we only defeat our own efforts.

II. We also see the folly of attempting to ride roughshod over the feelings of people. Human nature is stronger than human law; and it soon became evident that a large proportion of the people would not have their houses placarded. This feeling was forcibly expressed to me by no less a person than the highest executive officer of the law, who declared that he would "just like to see anybody put a card on his door." This feeling is based, not merely upon prejudice, but upon an ineradicable feeling of opposition to the interference of government with the private rights and household arrangements of citizens. It is true that a good many thoughtless people —more or less consciously imbued with socialist notions about government—were very much taken with the idea of having other people's houses placarded; but, as a general rule, the only parties who thoroughly enjoy a placard on their own door are the people who have had trouble with their landlord, and consequently welcome scarlet fever in April as a means of getting even with their enemy. These being the facts, it did not take very long for the average doctor to find out on which side his bread was buttered. To their credit, or otherwise, it must not be forgotten that there was among our professional brethren a noble few who, more thoughtful of their duty to the public than of their obligations to their patients, never—well, yes, never—failed to report all their cases of scarlet fever. But, alas, many of us found the diagnosis of the disease surrounded by so many difficulties that often the approach of death alone sufficed to warrant a request for a "warning card."

III. We may learn the folly of attempting to enforce stringent measures in the case of endemic diseases with a comparatively low rate of mortality. It is true that our official statistics record a death-rate of about 24 per cent. from scarlet fever during the year 1878, but outside of the Health Office it is well-known that this is nearly or quite three times the actual rate. Consequently, it was found that the use of warning cards added nothing to the isolation of families suffering the disease. Besides this, owing to the great uncertainty which attends all measures of isolation and disinfection, it was found impossible to generate any widespread and lasting enthusiasm in favor of these latest resources of sanitary art. When people have burned their clothing, and have renovated their bedding, and have painted and varnished and disinfected everything regardless of expense, and have then seen a child emerging from a most scrupulous quarantine of six weeks after apparent perfect recovery, only to infect all his brothers and sisters, they generally conclude that they would rather let the children take their chances another time. And when other people have seen a single child passing through all the stages of malignant scarlet fever without the slightest attempt at isolation, and without infecting another individual in a large family, they are quite slow to regard scarlet fever as an intensely contagious disease.

IV. The last and most important lesson to be learned from our experience has reference to the proper limitation of the efforts of our sanitary authorities. In every instance where they have undertaken to intrude beyond the line which divides the public life of the citizen from his private relations, they have created evils greater than those they have sought to remove. Instead of the old-fashioned frank confession of scarlet fever with immediate notification of all the neighbors, we now have frequent concealment of cases, with all the petty deception and uneasiness which must grow out of such behavior. I have never met with anything which has done so much to debauch the conscience of the profession as this new method of "stamping out scarlet fever." If the health officers could be content to limit themselves to those functions which alone are consistent with good government, none of these evils would be experienced. Their authority should be supreme over the sanitary condition of all highways, alleys, and public places throughout the city. They may rightfully control the admission of children into the public schools, and should, therefore, seek to obtain the fullest information regarding the existence of contagious disease. They may properly abate all nuisances which endangers the welfare of the public. They may even enter the lobbies of hotels, and the yards and common passage-ways of tenement houses; but they cannot rightfully or wisely proceed a single step beyond the threshold which divides the public life of the citizen from his domestic relations. Sanitary enthusiasts and the inspired apostles of "state medicine" have got to recognize and to respect this line, if they desire any permanent influence with the community. It is their apparent indifference to these distinctions which makes thoughtful people so distrustful of the boards of health and similar associations which just now are so noisy. Unless they can learn these lessons and cease to encroach upon the private rights of citizens, they will as signally fail to accomplish their philanthropic ends as we have failed to stamp out scarlet fever in Chicago. Arbitrary methods can be tolerated—and then with but indifferent results for good—only in communities which have been effectually dragooned into servile subjection to the powers that be, or in regions where long enjoyment of a large measure of liberty has rendered people unsuspicious of the insidious methods by which their freedom is destroyed.

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AMYL NITRATE A CARDIAC STIMULANT.—There is an accumulation of evidence that this drug is a prompt and valuable cardiac stimulant. Where a rapid action is desired, it has no equal. Even when inhaled in half-drachm and drachm doses, it has never done any harm. Physicians should overcome their fear in this regard.

## A PECULIAR FORM OF CORNEAL OPACITY.

By RICHARD H. DERBY, M.D.,

SURGEON NEW YORK EYE AND EAR INFIRMARY.

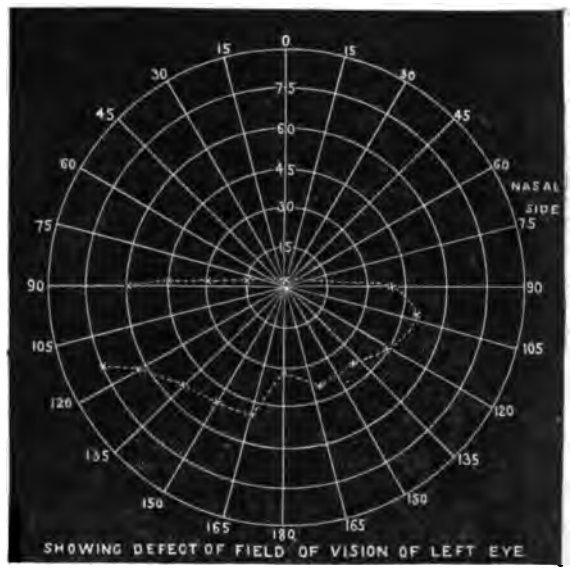
The case that is here presented illustrates an affection of the cornea, of which, so far as I know, an adequate description will scarcely be found in the text-books.

The "band-shaped" * corneal opacity extends usually from one side of the cornea to the other, occupying the region exposed when the lids are but half open. It is symmetrical on both eyes, and the rest of the cornea continues quite clear and unaffected. The opacity lies in the superficial lamella of the cornea, the surface of which is sometimes dull; its color is gray or yellowish brown, later on here and there showing white spots. Von Graefe likens its appearance to the effect of smearing across the cornea salve containing some metallic salt.

The beginning † of this affection escapes the notice of the patient. He complains of dazzling, or comes for advice on account of slight failure of sight. There is at the outset, on either the nasal or temporal or both margins of the cornea, a faint opacity. These two regions of cloudiness slowly advance toward each other until they meet; the opacity now gains in intensity, and later on completely masks the subjacent pupil and iris. As v. Graefe shows, in this period it is purely a corneal affection with which we have to do. In a certain class of cases the tension of the eyeball increases, the pupil becomes inactive and dilated, and excavation of the optic disk takes place, as in glaucoma simplex. In another class of cases the pupil resists all mydriatics, the iris is discolored, posterior synechiæ are formed. With this chronic iritis the opacities of the cornea become more intense, are finely mottled with dark and light dots (consisting, perhaps, of carbonate of lime), and secondary glaucoma may be developed.

The case that is presented here illustrates two different stages of this corneal affection. Patient F. S., aged 54 years, has had trouble with his right eye since childhood. Nearly every year, for a fortnight at a time, the eye has been painful, and the sight gradually failed until about eight years ago the eye was practically of no use to him. More than twenty years ago he had pain in the left eye and lachrymation, but the sight of this eye did not begin to fail until within the last four years. Since then the eye has not been so strong, and patient has on this account in the last few months been unable to do his work as a mason. During this time he has frequently suffered from temporary obscurations, and has noticed rainbow colors around the lights. The right eye (see woodcut) presents the following appearances. Extending across the cornea and completely hiding the region of the pupil is an opacity containing probably calcareous deposits.

There is occlusion of the pupil and the tissue of the iris is atrophied. There is a faint perception of light, but no projection. The appearance of the left eye is indicated in the drawing, and illustrates a comparatively early stage of the disease. The band-shaped opacity in its upper margin corresponds to the horizontal meridian of the cornea; it is nowhere transparent, and is of a grayish white color; its margins clearly defined and the cornea beyond clear. The pupil dilates moderately well under atropine, but neither after its use or with the stenopœic slit is the vision improved. The vision of this eye is $\frac{1}{14}$. Jæger No. 4 can be read in five inches. There is marked limitation of the visual field upward, and downward. De Wecker * gives the name of *opacités glaucomateuses* to this corneal affection, which he describes as rare and found only among adults.




Clarke † has published three cases of symmetrical opacities of both corneæ. In two of these the opacity was of a rusty brown color, the deposit appearing to be pigmentary; in the third it was of a calcareous nature. In none of these cases does the author speak of any evidences of secondary glaucoma.

Bowman ‡ speaks of a form of opacity of the cornea which he believes to have its seat in the anterior elastic lamina. He describes it as creeping very gradually from near the border over the surface of the cornea toward the centre. "The epithelial surface retains its smoothness and lustre, and the opacity does not appear to have much depth. Other varieties of opacity, very chronic in their course, and evidently not inflammatory, are liable to form, as I believe, in the same tissue. They may be of a brown tint, with an indefinite margin, and may affect both corneæ at the same time. I am not aware that these are particularly described in books, nor whether they admit of removal or even arrest."

Of the pathology of the band-shaped corneal opac-

* v. Graefe: Archiv f. Ophth., XV. 3, p. 138.
† v. Graefe: l. c., p. 140.

* De Wecker's Thérapeutique oculaire, I., p. 200.
† Clarke: On some Rare Forms of Opacity of the Cornea. The British Medical Journal, Oct. 8, 1870, p. 380.
‡ Bowman: Lectures on Parts concerned in the Operations on the Eye, p. 38.

ity very little has been written. Recently Goldzieher * had an opportunity to examine an eye whose cornea presented a typical example of this affection. Upon removing the cornea and holding it to the light, here and there in the anterior lamella masses looking like free pigment could be seen. Under the microscope these masses proved to be colloid, lying in the most diverse forms in the superficial layer of the cornea. The corneal epithelium was thickened, and in places showed hyaline degeneration.

In the treatment of this affection von Graefe has pointed out the advantage of an early iridectomy, both in its effect upon the advance of the corneal process and in checking the secondary changes to which such eyes are liable.

## CONTRACTED KIDNEY.

By WILLIAM S. ELY, M.D.,

ROCHESTER, N. Y.

(Read at recent meeting of New York State Medical Society.)

MR. PRESIDENT AND GENTLEMEN: The readers of "Ziemssen's Cyclopædia" will, I think, agree that Vol. XV., on "Diseases of the Kidney," is one of the most important of the series, and an able exponent of the most advanced views of kidney pathology.

My own experience has impressed me with the value of Prof. Bartels' article upon renal cirrhosis, in the volume referred to. This is a chronic form of kidney disease, to which the terms "contracted kidney," "interstitial nephritis," "renal sclerosis," and "granular atrophy of the kidney" have been applied by different writers.

Though authorities differ about the mode of production of the pathological condition bearing these names, they agree that the weight of the kidneys is reduced; that they are tougher than normal; that the capsules are often thickened and unusually adherent, and when torn off leave a granular surface. On section the cortical substance is seen to be greatly diminished, and, if the substance of the kidney is submitted to careful microscopic examination, it is found that the tubular structure and its contained epithelium have undergone extensive wasting. In addition to these changes, in every typical case, there is hypertrophy of the left ventricle of the heart, without valvular lesion. Bright noticed cardiac hypertrophy in some of the kidney conditions bearing his name, but its constancy with "contracted kidney" and its significance have been determined by Traube, Bartels, Grainger Stewart, and others. It has been attributed to increased tension in the general arterial system, due to vascular obstruction in the kidneys, and this hypertrophy is deemed as compensatory and conservative as is the case with valvular lesion.

Prof. Bartels has endeavored to prove that contracted kidney, the pathology of which I have just outlined, is often a distinct affection, not necessarily preceded nor followed by parenchymatous nephritis. It is the most insidious and easily overlooked of all chronic kidney diseases. Affecting frequently persons beyond middle life, its beginning is seldom recognized, and the disease may be far advanced before the physician's attention is called to it.

Occasionally the first premonition is a fatal convulsion or an apoplectic fit, and the detection of renal cirrhosis then becomes the work of the post-mortem examination. As a rule, however, certain significant symptoms are present during life. They relate to the nervous and digestive systems, and to the discharge of an excessive quantity of urine of a low specific gravity. It ordinarily contains a faint trace of albumen, and when the sediment from the entire quantity passed in twenty-four hours is concentrated in a conical glass only a very few hyaline casts may be detected. The patient at this time may be actively engaged in business; he may have the appearance of perfect health, and deem himself only slightly nervous or dyspeptic. A single examination of his urine will not determine the nature or gravity of the case, and it is essential for a correct diagnosis that the entire quantity voided in successive periods of twenty-four hours should be saved for examination, for the quantity may be a most important symptom. So largely increased is it, that the patient often considers himself affected with diabetes. In this opinion his physician may coincide. Many standard works treat of protracted and fatal cases of polyuria, under the head of diabetes insipidus, and class it among obscure nervous affections. Trousseau, Roberts, Dickinson, and others devote chapters to its symptomatology and hopeless tendencies, while upon its pathology they throw little or no light. Since the microscopic examination of diseased kidneys has supplemented the opinions resulting from observations by the naked eye, diabetes insipidus is found to mean renal cirrhosis; and so constantly is this the case, that I desire to raise the question suggested by Dr. Loomis, whether there is any such condition as diabetes insipidus terminating fatally without renal changes, and, I will add, without renal contraction? I cannot better call attention to the ideas which I am able only to summarize in this paper than by the recital of two cases, the first of which illustrates a frequent, and the second an exceptional, form of contracted kidney.

In June, 1876, Mr. ———, sixty-nine years old, a well-preserved man, of fine physique and healthy appearance, weight 194 pounds, consulted me for dyspepsia and irritable bladder. A specimen of urine then examined was slightly albuminous, but no casts were found. My next note of this patient is a year later, June 11, 1877. He had had faintness, and dull headache, with slight blurring of vision. On June 14th I measured the quantity of his urine for twenty-four hours, and found he had passed 54½ ounces, acid, specific gravity 1010. There was the faintest trace of albumen, and a few hyaline casts were obtained from the concentrated sediment.

Headache continued for several days, with dizziness and ringing in the ears. Repeated examinations of his urine gave an average of 71 ounces for twenty-four hours, of specific gravity 1012, every specimen containing a trace of albumen and a very few casts.

The normal urea discharge for this patient—adopting the usual estimate of 8½ grains per pound weight—was 679 grains daily, while his actual discharge was 420 grains.

I now made a diagnosis of contracted kidney, and in December, 1877, at my suggestion, he consulted Prof. Alonzo Clark, of New York, without, however, giving him my opinion.

Dr. Clark wrote me that he detected "slight hypertrophy of the heart, some albumen in his urine, and in one specimen hyaline casts;" and added, with that characteristic caution known to so many of us—that, "if this patient had not kidney disease, he was gravely threatened with it." Upon two or three urinary examinations Prof. Clark would seldom speak more strongly in a case of this kind.

The patient returned home, and I continued for a length of time my observations. The quantity of

* Centralblatt für prak. Augenheilkunde, January, 1879.

urine was always in excess; its specific gravity always low, with the merest trace of albumen and casts. There were the same nervous and dyspeptic symptoms above noted, but no dropsy, anæmia, or vomiting. Again going to New York, this gentleman saw another physician of high standing, who pronounced his kidneys healthy, and his difficulty to be cerebral. In due time he came back to me in the same condition as before. He is still living, has gained in weight, has no dropsy, but suffers constantly from symptoms of moderate uræmic poisoning; and though thirty-two months have elapsed since I first saw him, I still consider his disease contracted kidney—sure to end fatally in time. Yet, to-day, the evidence of kidney disease would appear so slight to many physicians who should only examine a small quantity and a single specimen of his urine, that it would be rejected altogether.

A more remarkable case recently came under my notice, which is so instructive that I present it somewhat in detail.

I was consulted, Nov. 23, 1878, by a man of splendid physique, weighing 215 pounds. Previous to his present indisposition, he had never been sick a day in his life. He had always performed an immense amount of work, which he had been forced to abandon a few days prior to calling me, on account of rapidly developing debility, the cause of which was to him unaccountable. I could detect no organic disease, but immediately examined a specimen of his urine. It presented nothing abnormal, except that specific gravity was too low. Two or three days later attention was called to his excessive thirst, which led me to direct that all the urine passed in twenty-four hours be saved for examination. To my surprise the quantity amounted to 118 ounces; it was acid, of specific gravity 1004, without the slightest evidence of albumen or casts. From this date, Nov. 29th, until Dec. 31st, I accurately measured the urine every day, except Dec. 19th, and it was carefully examined for albumen and casts. The quantity varied from 64 ounces to 141 ounces, giving an average for twenty-two days of 104 ounces. The reaction was always acid, and the specific gravity fluctuated from 1004 to 1012.

Instead of the normal discharge of 752½ grains of urea daily, his average discharge was only 368 grains. There was no visual disturbance, and he did not suffer from headache, vomiting, or dropsy. The temperature was normal, but there was increasing debility, with great repugnance to food, and the condition of the urine as above stated.

Entire absence of albumen and casts for weeks, and my inability, on account of excess of fat, to determine that his heart was enlarged, led me, conjointly with other physicians, to deem the condition one of profound nervous disturbance, with undue nervous excitation of the kidneys; but, back of all, some centric, nervous lesion, probably of fatal import. I became dissatisfied, however, with this vague opinion, and determined to submit a report of the case to Professors Flint and Loomis, of New York. They were told what is here stated, examined carefully the record of urine and the discharge of urea, and did not hesitate to express it as their confident opinion that I was dealing with a case of contracted kidney, and would very early have an opportunity to verify their diagnosis.

In support of this belief, Professor Loomis adduced the results of six post-mortem examinations by himself, one of which was parallel to that now reported, in that albumen and casts were absent for a number of weeks.

Just at this time my patient, whose temperature had never been above normal, had an access of fever, with severe pain in region of right kidney, and retention of urine. I drew off 43½ ounces with the catheter, and now for the first time albumen was present, with epithelial and granular casts; in short, there were the symptoms and appearances of acute nephritis. Cystitis soon developed, and septicæmia followed, inducing a deepening coma, and death on the 31st of December. At the post-mortem examination, made Jan. 1st, the kidneys were found contracted, and in a state of chronic interstitial nephritis, with evidence of recent inflammation in right kidney.

The bladder was hypertrophied, and signs of recent cystitis were present. The middle lobe of the prostate gland was enlarged. The heart weighed 15½ ounces; other organs healthy.

We have here, gentlemen, evidence that a man had been able to do a large amount of work with the appearance of perfect health, while a most serious disease was in progress, for which he asked no advice until two months before it terminated his life. What I desire to have you specially observe is, that in this case the only symptoms noted were: rapidly developing debility, loss of appetite, extreme thirst, and the passage of urine excessive in quantity and of a low specific gravity.

Bartels, whose able article I hope all will read, in his report of seventy-seven cases of contracted kidney noted *but one* in which albumen was absent for any length of time. On page 440, Vol. XV. of Ziemssen, he reports one case in which albumen was entirely absent from the urine for twenty-nine days. *He therefore did not recognize the renal malady during life.* The urine of his patient was examined daily from the 29th of January to the 3d of March. An attack of fever occurred on the 27th of February, and slight albumen then appeared. The post-mortem revealed contracted kidneys. In *my* case the most careful examination did not afford a particle of albumen or any casts for twenty-three days, and I do not believe that they would then have appeared had not the acute inflammation supervened.

Why do I lay such stress upon these particulars?

It is to impress what is now firmly believed by myself, in the light of these cases, that the most serious of kidney lesions may be in progress, when, for over three weeks, neither albumen nor casts may demonstrate its presence.

How then is it to be recognized?

I believe *that in the exact determination of the quantity of urine and urea passed daily* we have an element for diagnosis more important than the profession has generally supposed.

Albumen may be absent, casts may be absent for weeks continuously, as I have shown; but when in any non-hysterical patient the urine is excessive, and the urea is habitually more or less deficient, and there is profound nervous and dyspeptic disturbance, and especially when we have with these conditions hypertrophy of the left ventricle of the heart, without valvular lesion to produce it, we are justified in the assumption of renal contraction as the cause—an assumption which time will probably develop into a conviction.

I need not add that contracted kidney is incurable, but its early recognition may often enable us to save our patients much useless medication, and so to dispose their daily lives as greatly to prolong them.

In the foregoing paper it has been my object:

1st. To call attention to renal cirrhosis as a distinct

affection, with hypertrophy of the left ventricle of the heart as a constant factor.

2d. To raise the question whether there is any such condition as fatal diabetes insipidus, independent of organic kidney disease?

3d. To impress the fact that, for the diagnosis of renal cirrhosis, long-continued examinations of the entire quantity of urine, voided in successive twenty-four hours, and estimates of its contained urea, are necessary.

4th. To prove by clinical experience that albumen and casts may be absent from urine for three weeks, when contracted kidney is far advanced, without headache, vomiting, dropsy, and uræmic amaurosis.

## Reports of Hospitals.

### WOMAN'S HOSPITAL, PHILADELPHIA.

NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

THE USE OF THE HOT-WATER [illegible]NE IN POST-PARTUM HEMORRHAGE, WITH ILLUSTRATIVE CASES.

(Reported for the MEDICAL RECORD by ANNA E. [illegible]ALL, M.D., Resident Physician.)

For many years the injection of cold water into the uterine cavity, as a means of arresting post-partum hemorrhage, has received varied consideration. The older obstetricians considered it a bold procedure, attended by many dangers, and not to be resorted to except in extreme cases. Some thought it impracticable from the difficulty of obtaining the necessary implements. Others disapproved of it, because its employment necessitated wetting the patient's bed and clothing; the latter objection, even if it could not be met by the use of a bed-pan, should not weigh for a moment when life is in danger.

The only point worthy of consideration in the practice is its hæmostatic value. In regard to this, we do not find that it has met with the success which was claimed for it, for which perhaps some allowance should be made from the want of confidence in it, and hence want of thoroughness in its use; however, in the instances in which it was resorted to in the Woman's Hospital, it failed to arrest the hemorrhage, notwithstanding all due care was taken in its employment, ice-water was used, and the stream was directed into the uterine cavity. For the past two years it has been altogether abandoned, and the hot-water vaginal douche substituted.

It is remarkable that so valuable a method of inducing uterine contractions as the stream of hot water should not have been utilized earlier in the treatment of post-partum hemorrhage. Kiwisch, in 1846, recommended, as a means of inducing premature labor, a continuous stream of warm water to be directed upon the cervix uteri.

Scanzoni directed further, for the efficiency of the douche, that the temperature of the water should be from 100° to 110° Fahr., the stream should be continued from ten to fifteen minutes, and should be repeated every two or three hours, until the onset of uterine contractions. Churchill found that the separation of the membranes from the uterus, together with the heat from the water, brought on labor after eight or ten repetitions.

The credit is said to be due to Dr. Emmet, of New York, for the use of the hot-water vaginal douche for the arrest of hemorrhage in gynæcological practice; but little has been said or written upon the value of this treatment in post-partum hemorrhage, with the exception of its recommendation in the second edition of Playfair's System of Midwifery, and of a report by Dr. Atthill of its successful use in sixteen cases in the Rotunda Hospital, of Dublin. A remedy so efficient, always available, and so free of danger, should be taught from every chair of obstetrics and in every work on midwifery.

There is no anxiety in the entire obstetric practice greater than that attendant upon the occurrence of post-partum hemorrhage. If ever prompt and efficient aid can turn the balance for life or death, it is at this moment. I can compare the sensations of the accoucheur at such a time to nothing more agonizing than the feelings attendant upon efforts to save the drowning, when at every grasp the unfortunate slips further and further away, slipping into death from between the very hands extended to save.

I have had the misfortune to lose two patients from post-partum hemorrhage, being called in both instances after delivery. Friction on the abdomen, pressure of the uterus, elevation of the hips, clearing the uterine cavity and vagina of coagula, and use of ergot, all failed in one case to induce uterine contractions, and the patient died within one hour after delivery. In the other instance the uterus contracted, but too late to save life. Since I have found that hot-water vaginal injections will produce such prompt results, I feel that had I then known their use my patient might have been saved. To those obstetricians who have had a similar experience, I have no need to urge the adoption of any means which has proved efficient in the arrest of hemorrhage; but it is to those beginning the practice of obstetrics, and to older practitioners, who thus far have fortunately escaped these frightful obstetric accidents, that I would urge the trial of a means, always available, since the necessary implements are to be found in every household and always efficient, as I believe, since it never yet has failed me.

The means of controlling hemorrhage from the uterus after delivery, is by thrombosis of the uterine sinuses, and this may be brought about in two ways—by uterine contractions, and by the direct application of styptics, with this difference, however, that in the former method the contracting muscle fibre in the orifices of the uterine sinuses, while in the latter method there is nothing to limit the thrombi, and consequently the patient is subjected to the danger attendant upon the washing of clots into the general circulation. Thus it is found that the best treatment in post-partum hemorrhage is to employ some means which will imitate nature by exciting uterine contractions, and for this the hot-water douche proves efficient. It is thus employed: A bed-pan, largest size, is placed beneath the patient's hips. A Davidson's syringe is used in preference to a fountain syringe, as an intermittent stream has been found more effectual in exciting contractions than a continuous stream. The water should be of the temperature of 110° Fahr., and not less in quantity than two quarts. A higher temperature is not well tolerated, and a lower temperature is ineffective. The anus of the injection is given as not less than half a gallon, but the rule is to continue the injection until the return stream is clear. Care is taken to see that the syringe is in good order, and that the air is thoroughly forced out before use. According to D[illegible]

M. McAllister's suggestion, we have substituted for the ordinary vaginal nozzle a tube of the same calibre, but six inches in length, which has the advantage of easy insertion, and obviates partly the great objection to the use of syringes in hospital practice, namely, the contact of the soft rubber with the vaginal walls. I am convinced that septic materials have been absorbed by the hose of the syringe and carried from one patient to another. I believe the only safety is in the provision of a separate syringe for each patient, to be used for her alone, and to be destroyed upon her discharge. The pecuniary objections to this in hospital practice are insurmountable, so we make a compromise between money and puerperal infectious diseases, by using the long metallic tube in place of the shorter vaginal nozzle. The tube should be inserted within the uterine cavity through the internal os, which may be recognized on careful examination, and it should be introduced to the fundus. It has been suggested to enlarge the perforation at the extremity of the tube in order to obtain a larger stream of water. Any coagulum which may interfere in the introduction of the nozzle, should be broken up, and the clots will be carried out in the return stream. If the right hand is used for introducing the tube, the left hand should be placed upon the abdomen, and should grasp the fundus, which should be the rule in any case where there is necessity to carry hand or instrument into the uterine cavity. As the water is injected, the relaxed uterus will become firm and hard beneath the hand, and the stream from the vagina will be less and less mixed with blood. It should be observed that in this simple operation we combine other means, and very important means, for exciting uterine contractions and arresting hemorrhage, namely, first, clearing the vagina and uterine cavity of coagula, and second, manual compression of the uterus. Nor does it interfere with other valuable expedients in post-partum hemorrhage, as elevation of the hips, etc. The rule for the time of continuance of the douche, as well as the frequency of repetition, depends not only on the promptness of the establishment of uterine contractions, but also on their permanence.

In the lying-in wards of the Woman's Hospital during the past six months, it has been the routine practice to use the hot-water vaginal injection in every case after delivery of the placenta, and, during that period, notwithstanding circumstances predisposing to relaxation of the uterus, there have been but two cases of post-partum hemorrhage, neither of which were from uterine relaxation, but both from laceration of the cervix. In several instances prolonged and complete anæsthesia was necessary for metric operations; but the uterus contracted promptly after the use of the douche, and in the instances of rrhage the flow of blood was quickly arrested.

se two cases, to which reference has been made, ne occurring in the out-practice of the hospi- of sufficient interest to warrant their report in

I.—Elizabeth McL., aged 30, Irish, primi- ployed as a domestic, was in labor when ad- eptember 13, 1878. Dilatation was slow, and completion, pains being inefficient, and the ving reached the inferior strait, the patient rized, and I applied Simpson's forceps and a living child nine pounds in weight. Six after the birth of the child, the placenta was elivered according to Credé's method, and, e patient was still unconscious from the anæs- the uterus being firmly contracted, a large stream of bright blood was observed to flow from the vagina.

The hand was introduced, and the vagina and uterine cavity found free of coagula; but upon further investigation the blood was found to flow from a deep laceration on the left side of the os uteri. The wound extended up into the uterus, but was limited to its inner surface, thus avoiding an opening into the peritoneal cavity. The os uteri was drawn down to the vulvar orifice, where bleeding could be watched, and, from the force of the flow as well as from the size of the stream, it was believed that the circular artery was opened. It was decided before resorting to the difficult operation of ligation to try the hot-water douche. The grasp upon the os was relaxed, a stream of hot water directed upon the wound, and the flow of blood was immediately arrested. The patient made a good recovery, and was discharged seventeen days after confinement.

Case II.—Lizzie B., aged seventeen, American, primipara, was admitted in October, 1878. Labor began on the evening of the 18th; dilatation was, however, not complete until the afternoon of the following day, when the uterine contractions were so feeble that at 4.23 A.M. I applied Simpson's forceps, and in twelve minutes extracted a living child of 9½ pounds weight. There was no delay in the delivery of the placenta, and there was no hemorrhage either after the birth of the child or after the expulsion of the placenta. The lying-in was normal, with the exception of slow involution of the uterus, but there was no pain, tenderness, or other symptom of metritis. Suddenly on the seventh day, during my absence from the hospital, the patient being still confined to her bed, there occurred a hemorrhage from the vagina; the flow was profuse, but was temporarily checked by elevation of the hips. After an interval of two hours the hemorrhage was repeated, and was severe, attended with great pallor, faintness, and cold sweat. I then made a careful vaginal examination, and found a deep rent on the right side of the cervix, and extending into the vagina. I traced the flow of blood to the wound. Immediate resort was had to the hot-water douche, which completely controlled the hemorrhage for the time. The flow of blood returning, though with less force, a continuous stream of hot water, by means of a reservoir syringe, was maintained for two hours, and there was no further hemorrhage. The patient was very anæmic, and made so slow a recovery that she did not leave the hospital until the fifty-fourth day after parturition. Previous to her discharge vaginal examination revealed a deep laceration on the right side of the cervix. The edges of the wound were gaping, and cicatrization was not entirely complete. Bands of adhesion extended down to the right lateral wall of the vagina. This case is certainly unique. A secondary postpartum hemorrhage, which must have been caused by a slough of the cervix opening the circular artery. The amount of blood could have come from no other source, as a vaginal examination at the time of the hemorrhage showed that the flow did not come from within the uterus, thus excluding the placental site as the source of the hemorrhage.

The third case occurred in the out-practice of the hospital. Jette S., aged twenty-two, German, already the mother of two children, was delivered by a midwife on January 30, 1879. The pains were said to have begun at three o'clock in the morning, but the labor was not terminated until 9.30 A.M. of the same day. The child was large, the pains were reported to have been severe, and the labor rapid. Interference

in the placental delivery was positively denied. At about ten A.M. the midwife recognized "something wrong," and sent for medical aid.

Dr. Frances E. White was summoned at noon, and found complete inversion of the uterus, the patient in collapse, pulse 140 per minute, and very feeble. Dr. White sent for me to assist her, but I did not reach the patient, who resided some distance from the hospital, until one P.M. I found much the same condition as reported on Dr. White's arrival. The patient was very restless, and was making bearing-down efforts at short intervals. Vaginal examination revealed a round body, size of a child's head, projecting into the vagina. The upper constricted portion, if any part could be called constricted, was found to be the rim of the os, and continuous with the tumor. The surface was covered with a film of coagulated blood, and there was a slight oozing upon an attempt to reduce the inversion. Anæsthesia was then determined upon, and, as ether was being procured, Dr. Edward T. Watson came, who had been summoned by the family previous to the arrival of Dr. White, and who very kindly assisted in the case. Etherization being effected, I introduced the right hand into the vagina, and by making upward pressure on the most dependent portion of the tumor, first with one finger and then with two, I succeeded in indenting the uterus, and by careful and continued pressure in correcting entirely the inversion. The uterus, when replaced, was completely relaxed, giving the hand the sensation of being in a great rubber bag, and all efforts at friction over the abdomen, movement of the hand within the uterine cavity, etc., failed to excite contractions. A hypodermic injection of ergot was equally unsuccessful. Resort was then had to the hot-water douche, and immediately firm and strong uterine contractions followed its use, the hand was withdrawn, and the uterus remained firmly contracted. There was no flow of blood after the reduction—in fact, there had been no very great hemorrhage since Dr. White's attendance; but from the previous flow the bed and clothing of the patient were saturated, and a vessel half filled with coagula stood beneath the bed. During the etherization the pulse improved in volume and diminished in frequency, but upon recovery of consciousness the radial pulse could not be counted, and the patient had all the symptoms of extreme collapse. The restlessness attendant upon hemorrhage was anticipated by the hypodermic use of morphia. The patient, being warmed and stimulated, rallied somewhat, so that the radial pulse returned, and beat at the rate of 130 per minute, and a slight trace of color appeared in the lips. This improvement, however, was but temporary, and at seven P.M. the patient became very restless, notwithstanding repeated hypodermic injections of morphia. She complained of intolerable thirst, her respiration became sighing, the skin lost its warmth, and the radial pulse rose to 170 per minute. Dr. Albert H. Smith, who very kindly saw the patient with us in the evening, agreed that transfusion of blood was the only hope. Dr. Charles T. Hunter very promptly and cheerfully consented to perform the operation, which, however, owing to unavoidable delay, was not begun until ten P.M. When about an ounce of blood had been injected the patient became moribund, and died during the transfusion.

The examination of the placenta showed it to be entire in its outline; it was somewhat torn about the centre, but there was little or no loss of its substance.

The hot-water douche acted most promptly and efficiently in this case, exciting uterine contractions, in actual collapse, and not only inducing contractions but maintaining them, for even after death the uterine globe was found firm and contracted below the umbilicus. Had assistance reached the patient earlier after the occurrence of the accident, the inverted uterus been replaced, and contractions excited by the stream of hot water, I believe the result would have been very different.

## Progress of Medical Science.

DIABETES COMPLICATED BY SYMMETRICAL GANGRENE OF THE PLANTAR REGIONS.—Dr. Magnin published in the *Journal de Médecine* the following case: The patient, aged sixty-four, had always enjoyed good health up to 1871; then he began to suffer from diabetes, the urine containing fifty-four grammes of sugar per litre. He was treated for this with some success, but in March, 1878, there was still some sugar present in the urine. At this time the patient was much alarmed at the appearance of symmetrical rows of purplish spots, the size of peas, on both feet, especially the right one. This eruption was very tender, and gave great pain not only on walking, but also while resting. The pains on lying down were described as of a lancinating character, similar to an electric shock, equally rapid in their appearance and disappearance. Diabetic gangrene was suspected, and local applications of quinine and arsenic, together with the internal administration of quinine, were made use of. The symptoms, however, grew worse, and the affection progressed rapidly, the skin on the right foot having a macerated appearance. As a last expedient, Dr. Magnin resolved to try local oxygen-baths, without, however, placing much faith in them. They were administered by drawing over the leg and foot a rubber tube, into which the oxygen was conducted. The patient took a bath of half an hour the first day without experiencing any relief. The foot was very red, and perspired abundantly. The treatment was continued for twelve days, after which time all traces of the purplish spots and the pain had entirely disappeared. The patient still suffers from diabetes, but is comparatively healthy and able to attend to his business.—*The London Medical Record*, March 15, 1879.

IDIOPATHIC GANGRENOUS CELLULITIS ABOUT THE RECTUM.—In a clinical lecture delivered in Queen's College, Birmingham, Furneaux Jordan, F.R.C.S., describes a gangrenous affection of the cellular tissue about the rectum of which he has seen several cases. They have all occurred in big, heavy, middle-aged men—men of continual activity and excitable temperament, always walking or travelling, or eating or drinking; in men who combined two bad habits—eating too much and drinking too much; in men sufficiently well-to-do to indulge at will, and who firmly believed that excess of work needed excess of food and liquor; in men who were indifferent to weather, and had been notably exposed to cold and wet. The pale, hard, slightly lobed, extremely prominent swelling projecting between the big buttocks of a big man is not easy to describe. It may begin anywhere in the vicinity of the rectum, around the tube or near the surface; if it begin deeply, it soon comes to the surface; if it begin under the skin, it soon extends deeply. Its deep position is sometimes known by the effects of pressure, as on the sacral plexus. Fever and extreme prostration are present. The progress of

the disease is very rapid. The skin over the swelling, if not cut by the surgeon, quickly melts away, and discloses a mass of dead, black, fœtid tissue, but, as a rule, no suppuration. The slough comes away rather slowly; a cavity, usually of extreme size, is left, which closes tardily, and leaves, curiously, no fistula, as does the ischio-rectal abscess. The gravest feature in the progress of these cases is the great tendency to relapse or extension, or both. Cellulitis, closely followed by gangrene, may suddenly extend, in possibly fatal, and always dangerous, directions. Early and active counter-irritation, and prompt incision of the swelling are recommended.—*The British Medical Journal*, January 18, 1879.

THE PATHOLOGICAL CONDITIONS OF ALBUMINURIA.—Rumberg has summed up the results of his observations as follows: The transudation of albumen into the urine always takes place in the Malpighian bodies, and is due to an increased permeability of the walls of the convoluted tubes and their epithelial lining. The particles of albumen which are suspended in the blood-serum, and which, under normal conditions, cannot transude through the membranes of the Malpighian bodies, are washed through them, together with the other constituents of the urine, and mix with the latter.

In a healthy kidney this increased permeability is due to a considerable decrease in the difference between the blood-pressure within the Malpighian bodies and the counter-pressure within the urinary tubuli. Here, therefore, the albuminuria would only be accidental or transitory, and may, according to what has been said, be ascribed either to a considerable increase in the pressure in the urinary tubules, or a decrease in the blood-pressure in the Malpighian bodies, or to both causes combined. If the albuminuria should, however, persist, then the increased permeability of the membranes must be ascribed to some degenerative or suppurative change within the convoluted tubes of the Malpighian bodies; here, too, pressure has a marked influence on the permeability of the lining, and consequently on the amount of albumen contained in the urine, in the same way as has been quoted above. Certain kinds of the albuminous bodies, such as egg-albumen and hæmoglobin, are transuded much more easily than serum albumen. If, therefore, these substances have been mixed in some way with the blood-serum, they immediately transude into the urine like dissolving salts, even if the blood-pressure should be normal and the kidneys healthy.—*The London Medical Record*, March 15th.

TRICHINOUS PORK.—H. F. Atwood and W. F. Belfield, M.D., of Chicago, have been making some researches on this subject at the request of the Health Commissioner of that city. One hundred hogs were examined, and of these eight were found infected with varying degrees of intensity. A rat fed on this meat enjoyed the best of health, but, when killed, every muscle was found affected; from this it was deduced that trichinous animals are not generally out of health. Salting and smoking do not destroy the parasite, but sulphurous acid does. This acid readily permeates the entire ham, and is as readily expelled, and, owing to its cheapness, the addition of a sufficient quantity of it to the pickle would add but a trifle to the expense. The injection of a limited number of trichinæ is not followed by unpleasant results, as was proved by Dr. Belfield, who ate a portion of the rat referred to, which was demonstrated, under the microscope, to contain twelve living worms. Twenty-six days later no unusual symptoms had resulted. The only infallible means by which meat inspectors can detect the parasite in a carcass of meat is thought to be the microscope. The animal is destroyed by a temperature below that of boiling water. —*The Physician and Surgeon*, March, 1879.

THE TREATMENT OF RUPTURED BLADDER.—Mr. Heath narrated to the Royal Medical and Chirurgical Society a case from his own practice, in which rupture of the bladder was diagnosticated principally from the tense condition of the abdomen, from the fact that a catheter, on entering the bladder, drew off clear urine, but, on passing further, gave exit to bloody urine, which ebbed and flowed as the patient breathed, and that warm water, injected through the catheter, failed to distend the bladder, and was felt in the groins and abdomen by the patient. The abdomen was opened, and the rent in the bladder closed with a continuous catgut suture. A catheter was tied in, and gave exit to clear urine till the fifth day, when it became bloody, and symptoms of peritonitis developed, the patient dying just six days after the accident. At the post-mortem examination the lower portion of the bladder-wound was found open. Mr. Heath recommended in future cases a trial of catheterism and washing out of the peritoneum as practised by Dr. Thorp, reserving lateral lithotomy for cases in which the rent in the bladder could not be reached with the catheter. Mr. Bryant agreed with Mr. Heath, with regard to the operation of laparotomy, but thought that cystotomy through the perineum, as in lateral lithotomy, should be performed in all cases. Messrs. Marsh, Willett and Holmes were encouraged by the results of the operation of laparotomy, and urged that it should be tested further. The two cases in which it had been tried owed their failure to the giving way of the sutures in the bladder, and could not be quoted against the probable efficacy of the operation. It certainly seemed impossible to Mr. Marsh that clots could be emptied from the peritoneum by washing out the cavity through the bladder, and the importance of completely cleansing the cavity was recognized by every ovariotomist. The mere operation of opening the abdomen would, he was sure, come to be regarded as less and less dangerous. Great importance, however, attached to free drainage. —*The Lancet*, March 1, 1879.

ALBUMINURIA TREATED BY THE INHALATION OF OXYGEN.—At a meeting, January 8th, of the Société de Thérapeutique, M. Dujardin-Beaumetz read a paper on a case of albuminuria in which the albumen had entirely and rapidly disappeared after some inhalations of oxygen. The patient had reached the last stage of the disease; every diuretic had been employed, but without success, when inhalations of oxygen were resorted to. The albumen disappeared within the next twenty-four hours, and had not reappeared since. Twelve days had elapsed, and the author wished to know if similar cases had been observed before, and if his treatment might be considered as attended by permanent success. In the discussion which followed it was remarked that similar cases had been observed, but the effect of a cure had never been permanent, the albumen generally appearing after two or more months.—*The London Medical Record*, March 15th.

"DRYING-UP" THE MILK.—At a meeting of the New York Academy of Medicine nearly all the speakers agreed that the best plan for "drying up" the milk in non-nursing mothers is to let the breasts *entirely alone;* no pumps, ointments, belladonna, or friction, etc.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, May 3, 1879.


## COMPARATIVE PATHOLOGY.

THERE seems to be little doubt that the investigations of diseases are now to be turned in a new direction, and one that has as yet received little attention from modern pathologists. It was not very long ago that we were all carried away by the brilliant studies and apparently conclusive arguments of Liebermeister, who told us that typhoid fever was produced by foul drinking water, and the emanations from sewers and privies. Later English investigations pointed toward milk as the vehicle of the poison, and so to the water used by the milk dealers, which was supposed to have been infected by typhoid excrementitious matters. Still later, milk seemed to have diffused the disease which coincided very remarkably in its area with the distribution of the supply from a particular dealer. This milk, upon close examination, appears to have been uncontaminated with any foreign matter whatsoever, and the question consequently arose, may not the poison have been derived from the cow herself?

Some observers have thought that they could trace scarlatina in a somewhat similar way through milk. In a recent discussion before the Pathological Society of London, the relation between the mammitis or mastitis of cows, known as "garget" or "caked bag," and diphtheria in mankind, was earnestly discussed. Whether or not a causal relation may ever be traced, it seems to be clear that these matters deserve to be looked into by those who are concerned with the investigations of disease, and then there will be no occasion for the criticism launched by the distinguished veterinarian, George Fleming, that "if physicians and surgeons will discuss the diseases of animals, especially in relation to the public health, they should possess some knowledge of these diseases." We must remember that the discovery of the nature of cow-pox, and its capacity for being inoculated in the human subject, has been the means of saving thousands and thousands of lives, and preventing the occurrence of those unsightly blemishes that small-pox leaves. The foot and mouth disease of animals has some important relations to mankind, for it is communicable by milk and produces ulcerations of the mucous membrane and disorders of the intestinal tract. The carbuncular or anthracoid diseases of animals, have also been objects of special interest through the studies of Bouley, Chauveau, Colin, and others, and their relation to malignant pustule in the human species has led to frequent and extended inquiries into the nature of the poisonous element. Indeed, the microphytic germ theory of disease derives much of its strength from the vegetable elements that are alleged to carry the poison of these affections. It is well known that the domestic animals have much the same diseases as man. To enumerate those of a single species, the horse has our ordinary lung and heart diseases, with but comparatively slight differences. He has also various forms of Bright's disease, pyelitis, diabetes, and in nervous affections, cerebro-spinal meningitis, epilepsy, chorea, etc. Besides these he has glanders, charbon, and the like, which are apt to be fatal when communicated to mankind, and should, therefore, be thoroughly understood by human physicians. There are other practical considerations, however, which should lead pathologists to make a study of disease in animals.

Precise notions as to the essential nature of the pleuro-pneumonia of cattle would be of great pecuniary value to the country at large, and might lead to the enactment of such provisions in the different States that the disease would be thoroughly exterminated with the least possible outlay of money. At present it is very desirable to do the work effectively, and it is accomplished by the slaughter of all infected cattle, indemnity of some kind being made to owners. Whether or not this is the cheapest and most effectual plan, for that is the plain issue in this case, is a matter under discussion. At the same time it may be said that, according to the Second Annual Report on Infectious Animal Diseases in Prussia, for the year ending March 31, 1878, the favorable decrease in the extension of this disease finds its explanation in the more exact execution of the law requiring the slaughter of all diseased animals.

But there are other epidemics among animals, notably the swine plague or hog-cholera, whatever its real nature may be. This disease is said, by good authority, to be the most fatal disease that exists among hogs. So important a position has it assumed that the veterinary department of the Privy Council in England has taken special measures to control it. These matters relate to the general sanitary affairs of the country, and we recommend them to the early attention of our National Board of Health, together with the subject of trichinosis, which, according to our continental brothers, exists without much let or hinderance in this

country, and necessarily occasions much annual loss of life. This also brings up another point, which for the student of human pathology is of immense interest. It is the general subject of parasites which have so largely their habitat in animals, and are thence often transferred to mankind. Recent observations seem to point toward important discoveries in this direction. It is a broad field and has as yet yielded no fruits commensurate with its extent. But there is a broader one still and one that is even less known. It is the general comparative pathological anatomy of animals. Much of error that has crept into the conclusions from experiments on animals may be traced to an imperfect knowledge of their ordinary diseases. This applies especially to investigations on the nature of tubercle. Then it is hardly conceivable but that a study of Bright's disease, diabetes in animals, and other affections of vast importance to the human family, should unveil some points of great value in elucidating obscure points in the disease. It is in this way that comparative anatomy has ministered to human anatomy. As the one is higher than the other because it presupposes a knowledge of it, so is comparative pathology the highest of all, as it requires a knowledge of the anatomy of men and animals both in health and disease. John Hunter recognized these bearings, but since his time it would appear that no British student of human medicine has entered the field, and certainly, within our knowledge, no one in this country has made these matters a study. In France, however, according to Fleming, Bouley, Le Blanc, and Colin, take their places as comparative pathologists in the Paris Academy of Medicine. Veterinary science is indeed an attachment to human medicine, and is capable of giving it great and practical assistance. We are, therefore, glad to see that the distinguished Chauveau, of Lyons, director of the veterinary school there, has accepted a chair of comparative pathology at the new university of that city, and more recently, that the University of Pennsylvania, always among the foremost in the cause of medical education, has made a move in the same direction.

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### MOISTURE AS AN IMPURITY IN AIR.

About three years ago Dr. T. J. Turner of the U. S. Navy, who was then serving on the *Tennessee*, had some trouble which we referred to at the time, with the commanding officer in regard to the hygienic regulations of the ship. Dr. Turner insisted that the constant wetting and holystoning of the berth-deck was injurious to the health of the sailors and was interfering with the recovery of some of his patients. The commander considered the doctor's suggestions presumptuous and ordered the wetting process to go on. Protestations were made, not only in vain, however, but with the result, finally, of stopping altogether the scientific investigations into the quality of the air on ship-board, while Dr. Turner was referred to headquarters on account of his obstinate and unwarrantable interference in the management of the ship's affairs. These events developed into much prominence the stupidity and arrogance which appear to have been the salient traits in the character of the commander. However, after a good many further troubles, Dr. Turner was enabled to continue his investigations, and the results of them have been recently published by the Medical and Surgical Bureau of the Navy Department. The work is entitled "Air and Moisture on Shipboard," and it contains some facts of much interest to landsmen as well as sailors. Some of his principal points deserve summarizing:

I. Four out of 10,000 volumes of the atmosphere is the normal amount of carbonic acid, and six parts in 10,000 is the limit of impurity that is regarded as safe. This carbonic acid is generally considered a measure of the other impurities in respired air, and especially of organic matter. When the amount of $CO_2$ reaches seven parts per 10,000, the air acquires a disagreeable odor. In unrespired air, the $CO_2$ may amount to ten parts per 10,000 without injury, which indicates the prominent part played by the other impurities.

II. Fifty cubic feet of still air are in one minute defiled by one man. This would be very alarming did we not remember that still air is a very rare thing for landsmen to find. Upon half a dozen government vessels, however, which are mentioned, this limit is said to be reached in less than one and a half minutes, and on berth-decks of vessels in commission the air always has carbonic acid in abnormal excess. Thus, on the *Powhattan*, during three months at Norfolk and New York, the $CO_2$ ranged from 11.8 to 19.6 per 10,000.

III. Moisture increases the amount of $CO_2$ in the air; it diminishes the exhalation of aqueous vapor from the skin and lungs, limits excretion, and, in consequence, life cannot be prolonged in air saturated with moisture at a temperature of 90° to 100°. In fact, humidity is the most dangerous air agent.

IV. Air should be considered dry or moist in proportion to its removal from saturation. Taking the point of saturation as 100, the average degree of saturation is from 50 to 70, varying with the temperature, the capacity for moisture being doubled for every 27° F. rise.

V. The continual washing and holystoning of the decks add very much to the natural humidity, and consequently to the unhealthiness of the sailors' quarters. To corroborate this, Dr. Turner gives a large number of statistics, showing that ships which have been kept dry have had far less sickness than those in which much wet scrubbing has been done. He recommends, therefore, that all decks below the spar-deck should be lacquered, and should be kept clean with the help of as little water as possible.

The value of Dr. Turner's observations and conclusions lies especially in the prominence which he gives

to moisture as an impurity in air. Although not alone or first in showing the bad effects of this condition, yet he has worked the matter up more exclusively, and brought it forward with more emphasis than is usually done in works on hygiene. If his conclusion is correct in regard to its absolutely fatal influence at a temperature of 90° to 100°, the fact may well be borne in mind, both in general questions of hygiene and in applying the now popular method of keeping patients with croup, etc., in a cloud of steam for considerable periods of time.

In regard to moisture on shipboard we are inclined to think that the doctor lays too much stress upon its special importance. Certainly his statistics are not sufficient to demonstrate the uniform and inevitable noxiousness of aqueous vapor. Many long voyages have occurred in which there was plenty of wet scrubbing, and no great amount of sickness. He has proved, however, that moisture is an agent which may do much harm, and poor Jack should be given the benefit of whatever increased healthfulness a drier berth-deck will afford him.

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### CREMATION SOCIETIES.

Following upon the popularity of cremation in Holland, and the governmental approval of it in Switzerland and other places, efforts are making in London to have a cremation society incorporated there. These attempts have called out some adverse criticisms from *The Lancet*. That journal appears to be considerably alarmed at the possible introduction of the new mortuary ceremony and it ends a fine antithesis with the appalling, though somewhat redundant announcement that "cremation will destroy the safeguards of public security." It would certainly be very unpleasant to have the "safeguards of our security" taken from us, but we hope the imminent peril is a little exaggerated. The means in which cremation will thus impair and perhaps entirely incinerate the foundations of society is this: the bodies of those who have been poisoned, or have died a violent death, being entirely destroyed, there will be lost with them strong evidences perhaps against the criminal parties. With the opportunity therefore of thus forever hiding in the flames of a reverbatory furnace the witness of their guilt, murder is expected to stalk abroad and the red right hand of Rapine flourish uncontrolled.

Now this danger has been considered by the authorities which have already incorporated cremation societies. That at Zurich, for instance, is obliged "to have the body carefully examined by the district physician and to have an autopsy made as a rule, in order to exclude the possibility of violent death." Regulations of this kind will reduce the danger of unappeased justice to a minimum, or exclude it altogether. For, be it remembered, the argument now concerns only the incorporation of a society. The general introduction of cremation is at present entirely impracticable and need not be discussed.

But *The Lancet* further argues against cremation on the ground that the asserted dangers to wells, etc., from country and suburban churchyards are not very great and can be more easily avoided in other ways than by cremation. The way suggested is to have the wells dug deeper, and it is asserted that the people could have good water if they would only take the trouble to thus deepen their sources of supply. Such a plan does not offer a practical remedy in this country at least. The depth of country wells here is from fifteen to twenty feet; if they were sunk a hundred feet deeper we doubt if the percolations of a graveyard would be any more sweet. There are few towns where Artesian wells can be dug.

While thus criticizing these arguments against cremation we do not assert that it, at present, should be the general mode of disposing of the dead. It is an undoubted fact, however, that to burn the body is the best way to treat it, from a sanitary point of view, and it is a process that need not offend either the religious or the æsthetic sense. Furthermore, it must be admitted that in the present burial system there is a positive danger to the health of the community, and there may be also, we are obliged to add, injury to the feelings of the friends through the now popular occupation of body-snatching. Thus, though cremation may not be a necessity at present, we may be forced to it as communities become more and more overcrowded. And if there are persons who wish to have themselves incinerated, the authorities should by all means allow them to have it done. Certainly no one need be alarmed by the phantoms that are afflicting the imagination of our English brethren.

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## Reports of Societies.

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### NEW YORK NEUROLOGICAL SOCIETY.

*Stated Meeting, April 7, 1879.*

DR. J. C. SHAW, PRESIDENT, IN THE CHAIR.

#### NEURITIS ASCENDENS, WITH SECONDARY CHANGES IN THE SPINAL CORD.

DR. V. P. GIBNEY reported a case of neuritis ascendens with secondary changes in the cord, occurring in a man æt. 35 years. His family history was unimportant. He was married; was the father of healthy children, had never had syphilis; and his habits were good. During the war of the Rebellion he contracted dysentery, which had recurred at intervals of a few months ever since. The patient was anæmic and somewhat emaciated, when a boil appeared in the region of the olecranon. A second boil appeared upon the posterior part of the elbow. A month later a feeling of numbness was developed, affecting the entire posterior surface of the forearm, and there was notable anæsthesia in the line of the ulnar nerve. A detailed account was given of the clinical history of the case, accom-

panied by remarks regarding its bearing upon the question of reflex paralysis, neuritis migrans, and neuritis ascendens. The case was regarded as one in which the internal and the external cutaneous and other nerves were primarily affected by extensive inflammation from a boil upon the elbow. The musculospiral, the brachial and the occipitalis minor nerves became involved. Dr. Gibney believed the case demonstrated that ascending neuritis was capable of developing secondary inflammatory changes in the cord by means of simple extension of the process *per continuatim*.

Dr. E. C. Seguin remarked that the subject of ascending neuritis had received but little attention, and for that reason the case reported by Dr. Gibney was an important one, although the positive demonstration of changes in the spinal cord was wanting. He then referred to a case which Dr. Weber, of Boston, had placed upon record, in which the demonstration was complete, as microscopical examination of the spinal cord had shown. He also referred to a case of his own in which the brachial plexus was removed by operation for the relief of pain incident to the development of neuromata, secondary to amputation of the arm. In the portion near the scaleni muscles there were evidences of chronic hyperplastic neuritis, and in the other portions evidences of Wallerian degeneration. It had also been demonstrated by Dr. Gull that in cases of numbness and paraplegia following vesical disease the lesion did not follow the nerves, but that the myelitis was produced through phlebitis.

### APHASIA DUE TO THROMBOSIS OF SMALL TWIGS SUPPLYING THE SPEECH REGION.

Dr. Putnam-Jacobi presented a patient with the following history. A remarkably healthy-looking boy, four or five years old, who had not had any sickness during his life, began to exhibit, in the latter part of February, some change in his mental condition. He first began to say curious phrases, soon began to run about in a wild manner, gradually spoke less and less, and at the end of a week ceased to say anything. With the loss of speech there was soon loss of power to make signs or gestures. He amused himself quietly alone. He did not cry aloud. There was no fever, vomiting, or convulsions. His hearing seemed perfectly good, as well as his other special senses. He did not seem to recognize the meaning of words, yet gave a nod of acceptance when certain articles were exhibited, as an apple, or a piece of cake, while he made no expression whatever when certain other articles, such as money, were shown, although previously he had been very fond of handling coins.

The temperature of his head was as follows:

Left frontal region, 95° F.; right, 94° F.

Left parietal region, 93½° F.; right, 94$\frac{2}{10}$° F.

Left occipital region, 96° F.; right, 93$\frac{8}{10}$° F.

Left vertical region, 92½° F.; right, 93½° F.

The temperature of the mouth was normal.

A diagnosis of aphasia due to thrombosis of small twigs supplying the speech region was made, and the patient was put upon iodide of potassium, in five-grain doses, three times a day. He first came under the doctor's observation March 7th. On March 12th he spoke for the first time, and said, "Stop that." A few days after he again ran about in a very wild manner. On the 20th of March he spoke several words, and at about the same time had an attack of crying. On the 27th of March he sang a little, and on the 28th he seemed to understand something said to him, and since that date his condition had remained nearly unchanged.

Dr E. C. Spitzka remarked that the patient was one whom he had seen a little time before he came under the observation of Dr. Jacobi, and at that time the child was cachectic, there had been classical strabismus, a febrile movement in the evening, and distinct hallucinations of sight. He had entered the case upon the books as a mild one of *tubercular meningitis*. He could hardly understand how a gradual occlusion of small vessels in the speech region could occur except by tubercular process, as he thought it could be safely said that no other specific taint was present.

Dr. Jacobi remarked that she had been unable to obtain any history of febrile movement, and the absence of fever was one reason why she had excluded meningitis.

Dr. Spitzka had therefore elicited symptoms which she had been unable to obtain.

Dr. E. C. Seguin remarked that in the absence of grave symptoms—such as hemiplegia, tendency to coma, and the more serious results of occlusion of blood-vessels in the brain—he was not quite prepared to accept the diagnosis made by Dr. Jacobi. He further referred to a case which in some respects was similar to the one presented, namely, one in which there were alternations of violent mania and melancholia. During the melancholic periods the child was absolutely mute.

Dr. Hammond remarked that a similar case came under his observation some six or eight years ago, in which there was no indication whatever of paralysis. The aphasia was of about the same character as in the case presented. He regarded it as a functional affection. All efforts to cure the child proved ineffectual. Believing it to be reflex in character, he resolved to make an experiment, and treated the patient for worms. A large number of worms were expelled, and as soon as gotten rid of the child was well. He regarded the present case as functional in character, and thought the child would ultimately entirely recover.

Dr. Jacobi remarked that in her case the mutism coincided with the periods of excitement.

Dr. Spitzka remarked that the rosy appearance of the patient did not exclude the presence of tubercular meningitis. He had not been able to elicit any history of malarial poisoning.

### PATHOLOGICAL ANATOMY OF TETANUS.

Dr. R. W. Amidon read a paper upon the above subject, in which he gave an account of the microscopic changes which had occurred in the spinal cord of a man who had died of tetanus following compound fracture of the radius. The pia-mater was thickened, and contained a great number of very large cells—some fusiform, some multipolar, and some contained large nuclei. There were in the cord dark granular spindle-shaped cells, which were unaffected by carmine. There were hyperæmia and thrombosis. There were cavities of various sizes in the nerve matter. The central canal was stuffed with epithelium. The changes were from simple vascular engorgement to disintegration, and affected the roots of the spinal accessory, trigeminus, facial, hypoglossal, and glossopharyngeal.

Dr. Spitzka discussed the paper, and remarked that he believed the lesions described were secondary and not essential.

Dr. Amidon remarked that the significance of the lesions did not consist in the changes that had taken place so much as in the fact that they were confined to one locality.

MYSOPHOBIA.

DR. W. A. HAMMOND read a paper upon the above subject, in which he described a form of mental derangement that consisted in a *fear of defilement or contamination*. Ten cases had fallen under his observation, but not fully recognizing the exact nature of the earlier ones, he based his paper upon the complete clinical histories of the last three. In the first case described there was an overpowering desire to wash the hands, and in that occupation the patient spent a large share of her time. The fear of becoming contaminated gave her the most intense mental anxiety, suffering and distress; and although she was able to recognize the absurdity in her case, yet during her waking hours she was haunted and followed by what was to her a most terribly distressing fear.

In the second case the fear of pollution was more extended and serious, and the patient washed her hands as many as two hundred times a day.

The third case was equally well defined, but not so severe. When the patient visited the doctor's office she could not be induced to touch the door-knob when she was ready to leave the consultation-room, because of the tormenting and distressing fear of becoming contaminated, which held her in its complete possession. The treatment which he had exhibited had been to keep the bowels quite soluble by means of pills composed of podophyllin, aloes, and ox-gall; to administer bromide of potassium, sodium, or calcium, and in combination with opium if there was a tendency to melancholia; and to use tonics—such as cod-liver oil, strychnia, iron, and quinine.

DR. E. C. SEGUIN referred to a case in which the patient suffered through fear of croton bugs. The fear followed her, and she saw the bugs when it was well established that there were none present. She was cured by moral treatment and by tonics.

DR. SPITZKA spoke of phobia as a symptom which complicated different conditions, and

DR. KIERNAN mentioned cases of chronic mania in which he had seen similar symptoms.

DR. HAMMOND remarked that the cases which he had reported, and to which he referred, were not cases of insanity, for they had neither hallucinations nor delusions.

The Society then went into Executive Session.

## NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, Thursday Evening, April 3, 1879.*

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

AFTER the reading and adoption of the minutes of the preceding meeting, Dr. E. H. Janes, of the Committee on Admissions, reported favorably on the names of the following gentlemen, who were afterward duly elected Fellows of the Academy: Charles Miller, George T. Harrison, Samuel Sexton, David Webster, Frederick A. Castle, Henry F. Garrigues, of Brooklyn, Alexander J. C. Skene, of Brooklyn, George B. Hickock, Thomas Kellogg, John T. Darby, and E. G. Janeway.

In the absence of the Librarian, Dr. Laurence Johnson, the Secretary, Dr. Hanks, announced for him that since his last report the Academy had received, as donations, 84 bound volumes, 88 pamphlets, 2 framed portraits, and a number of medical journals. Among the donors were mentioned the names of Drs. J. G. Adams, Albert H. Buck, Edward H. Peaslee, Austin Flint, Sr., S. S. Purple, Fordyce Barker, and H. B. Sands.

The Corresponding Secretary, Dr. Adams, after making a brief report, announced the death of one of the Honorary Fellows of the Academy, Dr. George B. Wood, of Philadelphia, and read a sketch of his life and services, in the course of which he alluded to his long and distinguished career as a physician, and as Professor of the Philadelphia College of Pharmacy and the Medical Department of the University of Pennsylvania, his voluminous writings, both medical and historical, and their high reputation, and his generous endowment of five chairs in what is known as the "Auxiliary Faculty of Medicine," in his *Alma Mater*. It was stated that the great work on materia medica and therapeutics, entitled "The United States Dispensatory," and originally published in 1833, in which he was associated with Dr. Bache (but the greater part of which was written by himself), passed through fourteen large editions, and reached a sale of no less than 130,000 volumes; while his work on the Practice of Medicine, in 2 volumes octavo, published in 1856, passed through six editions. In 1871 he was elected an Honorary Fellow of the New York Academy of Medicine. He was, said Dr. Adams, emphatically a leader among medical men, and few have ever filled so large a sphere of usefulness or attained so high a position in the profession.

After a report from the Section of Obstetrics, Dr. Salvatore Caro, chairman, the Secretary read the details of a plan proposed by a special committee of the council, and recommended by the council in general, for the compounding of annual dues. It provided that any Fellow of the Academy in regular standing, who had attained the age of 30 years, might compound for all future annual dues by the payment of $150; one who had attained the age of 35 years, by the payment of $145; one who had attained the age of 40 years, by the payment of $135; one who had attained the age of 45 years, by the payment of $125; one who had attained the age of 50 years, by the payment of $115; one who had attained the age of 55 years, by the payment of $105; one who had attained the age of 60 years, by the payment of $95; one who had attained the age of 65 years, by the payment of $80; and one who had attained the age of 70 years, by the payment of $55. Under the rules, the matter was laid on the table for one month.

The paper of the evening was then read by Dr. James R. Leaming, on

A NEW CLASSIFICATION OF PULMONARY PHTHISIS, WITH PRACTICAL CONSIDERATIONS.

The tendency of the present time, he said, was to rearrange, classify, and describe, with more detail, the various affections met with in the practice of medicine. As an instance of the advantage of this he cited the case of the so-called typhoid diseases, such as typhoid, typhus, and typho-malarial fevers, which were formerly considered but a single affection (this even being a decided advance over the extreme confusion that had previously prevailed) and were afterwards described, by Murchison and others, each as a distinct disorder, differing from the others of the group in its etiology, lesions, clinical history, and duration. That which had been so successfully accomplished in this class of affections remained to be done for the various forms of disease now known under the general name of pulmonary phthisis. He then quoted Sydenham's graphic delineation of the clinical characteristics of consumption, and remarked how little had been added to this description written two hun-

dred years ago! Laennec believed that, with scarcely an exception, all cases of phthisis were of a tuberculous character; while Broussais inclined to the idea of the ancients, that they were of an inflammatory nature. Laennec was deserving of all praise for his distinguished services, but, unfortunately, his well-earned fame had been instrumental in carrying some grave errors down to the present time. The more modern pathologists (particularly the Germans) had demonstrated that there were other forms of phthisis besides the purely tubercular, and their views had been adopted by many English and American authorities. Dr. Andrew Clark, in a lecture delivered at the Bellevue Hospital Medical College and reported in the New York MEDICAL RECORD of December 14th and 21st, 1878, divided pulmonary phthisis into three natural classes, and Dr. Leaming stated that he accepted his classification in part. The tuberculous and fibroid forms he regarded as not only distinct, but essentially opposite diseases, although they sometimes coexisted, and thus produced peculiar results. The classification which he had himself adopted, and which he now proposed to set forth, was founded both on clinical and *post-mortem* investigation. There were two principal forms of phthisis, he said, the tuberculous and the fibroid varieties. Under each class he enumerated two subdivisions, as follows:

I. TUBERCULAR PHTHISIS.

(1.) *Uncomplicated tubercular lung.*

(2.) *Tubercular lung with fibroid pleura.*

II. FIBROID PHTHISIS.

(1.) *Fibroid lung and fibroid pleura.*

(2.) *Fibroid lung and pleura, complicated with tubercle.*

#### UNCOMPLICATED TUBERCULAR LUNG

he believed to be a very rare condition. He had distinct recollections of but three cases of it, and no notes upon them. Louis had said that nothing was so frequent as adhesions of the lungs to the pleura, and out of one hundred and twelve cases, in only two were the lungs free from adhesions throughout their whole extent. In that form of phthisis the early history was very apt to be obscure, and the diagnosis difficult. Often the first sign only made its appearance after a cavity had been formed. It generally occurred in early adult life, and in those who had been living on poor food or surrounded by unwholesome sanitary conditions. In the early stage, when careful auscultation was made, a deficiency in the respiratory murmur, with slightly raised pitch, could be detected; but no râles. Neither was there any cough. When the tuberculous nodules softened, we had cough, expectoration, hectic, and all the well-known rational signs of phthisis. Then it was that fatal hemorrhage might occur from erosion of arteries.

When a cavity had been formed, the physical signs denoting its presence were not so plain as in fibroid phthisis, because the healthy lung tissue by which it was ordinarily surrounded was not a good conductor of sound. Wasting of the body commenced with the formation of cavities; and the case might end in general tuberculosis.

As to the treatment, that was of the greatest service which acted in the way of prevention. Chloride of ammonium was both a preventive and a curative agent; and cod-liver oil, quinine, the various other tonics, and change of scene and air, might all prove useful. If the heart's action was feeble and irregular, digitalis should be given, and atropia should be used to control night-sweats. In the way of local measures, strapping with adhesive strips were of service, and small blisters might assist nature by inducing adhesions. If forced expansion was made when there were newly formed cavities, there was great danger of pneumorrhagia. Fatal hemorrhage rarely occurred after a cavity was a week old.

#### TUBERCULAR LUNG WITH FIBROID PLEURA.

In the second subdivision of Dr. Leaming we had tubercular concretions following fibroid in the pleura. In that there was a greater liability to fatal hemorrhage than in the other. The arteries seemed to be more easily eroded, and when the hemorrhage (which was apt to occur early in the disease) came it was almost always a surprise to the physician, as well as to the patient and his friends. The first indication of danger was the filling up of the nose and mouth with frothy blood, and the patient was literally drowned before anything could be done to relieve him. Another accident which might occur (and which was also liable in the first variety) was the causation of hydro-pneumothorax by an opening being formed into the pleural cavity as the result of the softening of a tubercular concretion. That gave rise to a great amount of pain and dyspnœa; and death was pretty sure to occur after a longer or shorter period. Recovery was rare after this condition has occurred. The diagnosis was sufficiently easy, and the indications in the treatment were to secure perfect rest (which could best be accomplished by strapping the chest), relieve pain, and control inflammatory action.

#### FIBROID LUNG AND FIBROID PLEURA.

In the first subdivision of the second class we had fibroid lung with fibroid pleura. Here was something, said Dr. Leaming, quite opposite to the tubercular process. That was really a destruction of tissue, while that was merely a destruction of function. It differed from the tubercular variety of disease also in being much more amenable to treatment.

The writer was of the opinion that nine-tenths of all cases of phthisis commenced with interpleural plastic exudation. Hence, the early recognition and treatment of that condition were of vital importance, and he believed that the day was not far distant when (on account of the more general adoption of that view) the mortality from phthisis would be much less than now.

In that class the disease always originated in fibrination of the pleura. That was the local starting-point; but there was always a predisposing cause in some depression of the vital force which might be due to various circumstances. Thus, any individual who had long been attendant upon the sick, the student unsuccessful in passing his examinations, the man of business perplexed with unusual care, the disappointed lover, the defeated soldier, were all peculiarly liable to be attacked with fibroid phthisis. In like manner, syphilis, masturbation, the sequelæ of the various exanthemata, and similar depressing influences were prolific in its causation. The interpleural exudation, said Dr. Leaming, was a makeshift of nature, and it was often immediately re-absorbed. If it was not re-absorbed, however, it underwent organization and increased in extent; the result being that the pleura was pressed firmly down upon the air-sacs beneath.

The writer then went on to describe at some length the peculiar anatomical characters of the nutrient arteries of the lung, which, he believed, played a very important part in the history of fibroid phthisis, and

also satisfactorily explained some phenomena which would otherwise remain complete mysteries.

As fibrination went on, he continued, the patient gradually yielded before it. The outward form of the chest became more or less contracted and altered in shape, and the sufferer was obliged to stoop forward to prevent the racking cough that was so troublesome. Like some strong anaconda, the fibroid process was winding its ever-tightening coils about him.

Thus far the trouble had been confined entirely to the pleura; but in the second stage of the disease the fibrous bands extended down through the lungs themselves, and also involved the heart. Often a loud systolic murmur was thus occasioned.

The early physical signs were the same in each variety. Their distinguishing characteristic was soft tearing râles, which it required a somewhat practised ear to separate from the ordinary respiratory murmur beneath. When such signs could be made out, however, two facts were certain, viz., that there was plastic exudation in the pleura, and that the lungs were free. At the later stage of the process the râles were dry and crackling, and there was no trouble about making them out.

The treatment was simple and easy enough at the beginning of the trouble; but the longer the process went on the more difficult it became. Even if the exudation had existed for several weeks, however, the disease might be cured. Perhaps the most useful of all remedies here was the chloride of ammonium, which should be given in doses of from six to ten grains every waking hour. In addition, the patient should be surrounded by the best hygienic conditions, walk out in the country as much as possible, take deep and long inspirations to expand the chest, and live to a great extent on a milk diet. If these measures were unsuccessful, the bichloride of mercury in small doses should be tried, and Dr. Leaming believed that it acted as a tonic, as well as an alterant and solvent of adhesions. Some cases would not yield even to that, and then he advised the administration of mercurials to the point of salivation; which he thought had saved the life of the patient in a number of instances in his hands. In addition, small blisters would usually be of service; and, above all, chest-expansion should never be neglected. One of the best means of securing that, he believed, was to ride a fast-walking horse. Care must be observed, however, not to do violence to the adhesions that had formed by taking too active exercise. When from that cause, or as the result of any accident, pulmonary apoplexy ensued, complete rest should be enjoined, and the chest strapped with adhesive plaster. The advantages of climate and change of scene were also dwelt upon.

### FIBROID LUNG AND PLEURA, COMPLICATED WITH TUBERCLE.

In the second subdivision of the second class were found the greater proportion of all patients suffering from phthisis. That form he believed to be also essentially fibroid; the tubercular element being a secondary phenomenon.

Niemeyer, said Dr. Leaming, made the statement that the greatest danger to be apprehended in catarrhal pneumonia was that it might become tubercular. We would say rather that that was the greatest danger to be apprehended in fibroid phthisis. As the result of that condition, the well-known symptoms of phthisis were noted—such as cough, chills, fever, night-sweats, wasting, etc.—and at length the characteristic expectoration announced the formation of a cavity. The physical signs were always very distinct here, on account of the fibroid tissue in the lung and the hardened condition of the pleura. When the cavity had been formed, perhaps the patient might begin to sleep well, have an increased appetite, and feel better in every way; but there was seldom complete relief, and even if there was it was usually of short duration, for there were apt to be other tuberculous concretions undergoing softening at the same time.

Cavities in the lung, however, were not always of tubercular origin, as they might be due to fibroid disease, gangrene, etc., and might also be of traumatic origin. But to whatever causes it might be due the formation of a cavity in a fibroid lung was always of grave import, because it was so liable to become tubercular.

The treatment of that variety must consist in a judicious combination of that previously given for the fibroid and tubercular forms of phthisis. When the tubercular element had not already supervened, one supreme effort must be to prevent that complication. If, however, there were tubercular concretions, we must direct our attention towards preventing the extension of either form of disease. To that end the application of small blisters, and the confining of the patient to an exclusively milk diet for a time, were frequently of great service. Whenever fibroid phthisis was present we must endeavor to invigorate the vital powers, and Dr. Leaming, as before mentioned, fully believed in the tonic effect of mercury, as well as in its usefulness in carrying off effete products from the system. Of course caution must be observed in its use, but we need not deprive ourselves of its invaluable aid on that account. What would be thought, said he, of a surgeon who was afraid of a sharp knife!

The President, in announcing that the paper was now before the Academy, remarked that it showed great evidence of profound study and thought, as well as careful clinical observation, and that he hoped that the novel pathological and therapeutical views which it contained would elicit a full discussion on the part of the Fellows present. He would call first, therefore, on Prof. Flint.

Dr. Flint said that before coming to the meeting he was not aware what line of remark the paper would take. As the Chair had stated, the classification was a novel one, and he thought that a certain amount of study upon it would be necessary before one could intelligently adopt it. At present he was not prepared either to take issue with the writer or to accept his opinions. He recognized in Dr. Leaming a very zealous worker; but there was one pathological condition underlying his views, which, he must say, he believed to be erroneous, and that was the relations of pleurisy to phthisis. It had always seemed to him that the pleuritic disease met with in these cases was secondary to the pulmonary; while the writer regarded the pleuritic trouble as primary.

The classification of phthisis was a large subject, but he proposed to make but a very few remarks upon it on this occasion. Acute tuberculosis, he thought, must necessarily be considered as a distinct affection. So the purely fibroid variety of phthisis could be readily distinguished from other forms. Then there remained those cases of chronic lung-trouble, in which each of these elements seemed to enter to some extent; and it was difficult to know how to designate them.

The point at issue was, whether true miliary tubercles were present, and what was their relation to cases of chronic phthisis characterized by softening of the lung-tissue, the formation of cavities, etc. The views held as to this relation must, therefore, govern

to a great extent, our adoption of any classification. At present he did not feel that he could conscientiously commit himself to any definite opinion in regard to the matter; and he was content to wait until further research should perhaps decide it. Such studies were to be based both on histological data and clinical data; but he believed the latter to be of really the most value.

Dr. Loomis thought that the paper deserved careful consideration, and that the views which it advanced should be discussed from different standpoints. Any satisfactory classification, he believed, should be based on three things: *first*, etiology; *second*, morbid anatomy; and *third*, clinical history; and it seemed to him very difficult to make such a classification in which these various points would not clash. The reason was, that the opinions of the scientific world as to some of the most prominent and constant histological changes observed in phthisis were not yet settled. If he understood Dr. Leaming properly, he took issue with the ordinary view that phthisis originated in the lung-tissue, and held that the primary changes in the disease occurred in the pleura instead. He did not understand, however, exactly what the writer meant by the term "fibrination," or the expression "plastic exudation undergoing organization." If we were satisfied in regard to any pathological facts, it was that all plastic material underwent absorption, and that the later changes observed, such as adhesions, fibrous bands, etc., were the result of a hyperplasia, or increase in connective tissue in the pleura, the pericardium or the peritoneum. At length, contractions took place in this tissue, and thus, when occurring in the pleura, they interfered more or less with the circulation and nutrition of the surface of the lung beneath. If Dr. Leaming were correct in his opinion, very great pathological changes must necessarily take place in the pleura before they were discoverable; for in a large proportion of cases important changes could be detected in the lung long before there was any evidence whatever of trouble in the pleura. It was a difficult question to decide where the primary trouble originated, because the *post-mortem* examinations necessary to settle it must be made at a very early stage of the disease. Where autopsies were made in the advanced stages it was rather an assumption to say where the difficulty commenced. Auscultatory evidence, he thought, would not answer, because good diagnosticians differed utterly as to the significance of various signs met with in the chest. Personally he believed in three forms of phthisis, as described by Dr. Andrew Clark in his lecture; although this classification had been known to New York long before the visit of that distinguished physician. He could satisfy himself better with that division than any other; but he certainly was not bigoted in his views, and was still open to conviction.

Dr. E. Darwin Hudson, Jr., believed that pleurisy was one, at least, of the causes of phthisis. Every student, he said, must notice the occurrence of pleuritic adhesions, not merely in connection with the later, but also the early stages of phthisis. We were taught that in inflammation of the pleura the serous membrane became denuded of its epithelium, and then assumed a villous condition, when adhesions were apt to be formed. He believed that if adhesions were present to such an extent as to cause more or less contraction of the chest there would be definite and significant physical signs present, as had long since been recognized by Dr. Leaming. The latter was of the opinion that in a large majority of cases of phthisis interpleural plastic exudation was the commencement of the trouble, and that when that was present it could always be detected by a soft subcrepitant râle heard directly under the ear, and comparable to the sound produced by the tearing of wet cloth. He had also the authority of Rindfleisch for saying that no case of pleurisy ever occurred without a certain number of the air-sacs of the lung beneath becoming consolidated.

Dr. E. G. Janeway was the last speaker. He remarked that the question as to how far pleurisy could originate tuberculosis must be looked at in two ways. He had sometimes seen cases in which acute disseminated tubercle undoubtedly resulted from pleurisy, by septic infection: a process which it was difficult to explain. He could recall two instances in which, when there was no trouble whatever in the lung, there had been a sudden eruption of tubercle throughout the body; but at the same time he did not believe that phthisis ordinarily was to be ascribed to pleurisy. On the contrary, he considered that autopsies every day showed that when trouble both in the lung and pleura were found, that in the lung was undoubtedly the older of the two. That was evident, he contended, in those portions where the process was most recent. To his mind, therefore, it seemed plain that we could not, in the majority of instances at all events, attribute the phthisis to interpleural exudation.

As to pure fibroid of the lung, he was of the opinion that it was very rarely met with. If by the term fibroid, however, was meant a thickening of connective tissue associated with the presence of lymphoid cells, that was a much more common condition. Pathologists were by no means agreed as to what tubercle really was, and hence a great confusion of terms had arisen; but there now seemed to be a gravitation of current opinion towards the view that tubercle was of more frequent occurrence than was for a time supposed. In the last edition of Niemeyer's work a considerable modification of the views expressed by that writer was noticeable, and Rindfleisch had gone further back towards the old ideas than any other authority. There was a growing appreciation at the present time of the necessity for the consideration of constitutional tendencies; and it seemed demonstrable that there was ordinarily more of tubercle in phthisical lungs than Virchow formerly taught. Even Virchow, he imagined, was returning, to some extent, to the adoption of views that had once been discarded.

## Correspondence.

### PROFESSIONAL ADVERTISING IN THE DAILY PRESS.

To the Editor of The Medical Record.

Dear Sir:—Your correspondent, "Sic Nos," etc., has done the profession a service in calling attention to an abuse that appears to be rapidly extending. Hardly a week passes but one of the metropolitan journals contains a flattering notice of some favored member of the profession, and one journal in particular appears to have taken special pains to keep before the public the name of a prominent specialist in connection with certain "Talks to Young Men," etc. Just before reading the letter of "Sic Nos" in to-day's issue of the Record, I found in the *New York Times*

a notice, nearly a column in length, of a new medical journal, "Edited by Dr. E. C. Seguin." The notice commences: "This is a new medical journal, and having a man so distinguished as Dr. Seguin for an editor," etc. Farther on we read: "This brings us to the editorial department of the journal, in which we find, first, some valuable matter by the editor on diseases pertaining to the nervous system, *for whose treatment he is particularly celebrated*," etc. (italics our own). Now, sir, where is this thing to stop, and where is the line to be drawn? Have we still a committee of ethics, or did it go out of existence with the subsidence of the mineral-water excitement that called it into being? If that committee is dead, we think that an end can be put to this sort of thing if you will give the different gentlemen concerned a little additional gratuitous advertising by transferring to your columns the public press notices as they from time to time appear, and we trust that those who have the real welfare of the profession at heart will take the trouble to send you such clippings as fall under their eye.

NONNE?

## MEDICAL REPORTS IN NEWSPAPERS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The exceedingly incorrect report of my clinic which appeared in *The World* of April 18th, seemed to me to carry sufficient evidence on its face that I had nothing whatever to do with its production. But it seems I was mistaken, and that there are some over-sensitive, virtuous souls in a "state of mind" over this so-called breach of the code of ethics. Hence I desire to state most emphatically that I am utterly opposed to the publication of lectures and operations in the secular journals, as being calculated to lower the dignity of the profession, to bring it into disrepute, and to place the individual so advertised in the ranks of designing quacks.

The "crowd of spectators" present was simply a large assemblage of medical students from the city colleges, together with the nurses belonging to the Charity Hospital training-school. I invited no one who was not a practitioner of medicine to witness the operation. I had no idea that a word I said would ever appear in a public journal. I did not know that a reporter was in the building, or that any one was taking notes. *No friend* of mine had anything whatever to do with it. In short, I am not responsible for the report, directly or indirectly, in any shape or form.

Yours respectfully,

JOSEPH W. HOWE, M.D.

38 W. 24th STREET.

HOMŒOPATHIC CONFECTIONERY.—In some parts of Germany physicians are not permitted to dispense medicines, when there is an apothecary in the place to do it for them. We learn from the *Allg. Hom. Zeit.* that three homœopathic physicians were practising in Regensburg, when an apothecary of the same belief came among them and notified them to send their prescriptions to him. Two of them refused, and were brought before the court and fined about five dollars. The case was carried to a higher court, and the medicines (pellets) sent to the University of Erlangen for chemical analysis. The chemists of the university failed to find anything in them of a medicinal or poisonous nature, and so reported; whereupon the judge reversed the decision of the lower court, and declared that there was no law that prevented physicians from distributing sugar-plums (*Zuckerwaaren*) as freely as they chose.

# New Instruments.

## ON THE TREATMENT OF URETHRAL STRICTURE, WITH DESCRIPTION OF A NEW DILATOR.

BY GEO. M. SCHWEIG, M.D.,

NEW YORK.

THE literature on the subject of treatment of stricture of the urethra is so copious, the supporters of the various "radical cure" methods are apparently so sincere in their convictions and convincing in their arguments, that it is saddening to realize that they cannot *all* be right, and that the statistics of those who are wrong, though comprising innumerable cases, must of necessity be unreliable and deceptive. Until, therefore, discussion on the subject shall have finally ceased, and the matter settled beyond dispute, it behooves the practitioner to select the method that after a careful study of the subject may to him individually appear the most rational. Acting on this principle, I have always held that dilatation *carried to a sufficient extent*, is not only the *safest* method of treating the great bulk of cases of organic stricture, but the one which is at the same time the most likely to secure *radical and permanent results*. It were needless here to enter into an analysis of the reasons that led to my conclusions on the subject. I will only state, as a matter of justice, that the writings of Dr. Dittel, of Vienna, have been chiefly instrumental in originally shaping my views.

In endeavoring to put into practice the theories I adopted, I very soon realized the want of a *perfect* dilator for the urethra, and this want furnished a ready apology for the urethrotomist, in the impossibility to do full justice to dilatation. Far from discouraging me, the difficulties I encountered rather stimulated me to endeavor to surmount them. Whether I have succeeded must be for others to judge.

In devising an instrument that should meet fully the requirements of the surgeon, my ideal was: "(1) efficiency, combined with (2) perfect safety." Under the first head I claim for my dilator that it has the widest scope as such, being suitable alike for slow and gradual as well as rapid dilatation or over-distention (divulsion). Under the second, that its employment as a dilator is followed by no more reaction than that of an ordinary sound. This will become self-evident from the description to follow, which will also make apparent the absence of characteristics that rendered the employment of other dilators either dangerous or inefficient, or both. I am indebted to Messrs. Geo. Tiemann & Co. for their kind and ready aid through a long course of wearisome experimenting to the final completion of the instrument.

The accompanying woodcut shows in Fig. 1 the dilator closed; in Fig. 2 the dilator open. *A* (Fig. 1) shows the shaft of the instrument. As this is not intended to enter the bladder, it has not the curve of the ordinary sound. To facilitate introduction, however, its (conical) point has a modification of Mercier's curve. The length of the entire shaft is about twenty centimetres, but can be made any desired length. It is graduated in half inches, the measurement beginning at the centre of the *dilating wedge* (*b*). It is hollow, and contains the rod and levers that force out the dilating wedge.

This last (*b*) is three and a half to four centimetres

in length, and of a width equal to the diameter of the shaft, thus offering a *broad* dilating surface. It is enclosed on all sides except the one facing the interior of the shaft, or, in other words, on every side that protrudes into the urethra when the instrument is being used. It thus presents a smooth, solid, continuous surface to the urethra when protruded, leaving nowhere a crevice or opening for the engagement of any mucous membrane. When the instrument is closed, the wedge does not project, but is level with the shaft. It is forced out by two levers attached to a rod, which runs the length of the shaft, and is in turn attached to the screw-wheel (*d*), by means of which the instrument is worked. I had two levers made, one at each end of the wedge, rather than only one, thus insuring steadiness and parallelism to the wedge. At *e* there is an index (French scale) that shows the degree of dilatation at every stage of the operation; *c c* are ring handles to steady the instrument and keep it in place.

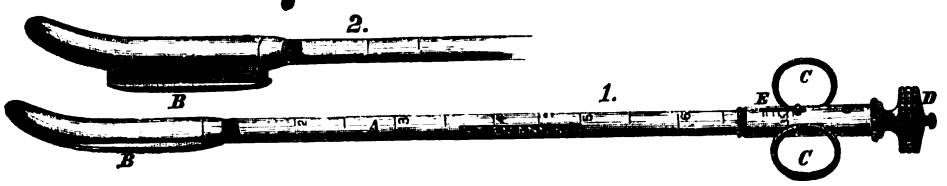
The instrument can be made of any required calibre. It must be remembered, however, that the degree of dilatation attainable is in direct ratio to the size of the shaft; for it will readily be understood that the hollow shaft can contain no wedge larger than its own cavity without destroying continuity of outline.

*Rationale of Treatment.*—I presume no one will dispute that in the meatus we have the main obstacle to successful (curative) dilatation by means of sounds. There are comparatively few strictures that will not admit of palliative dilatation, *i. e.*, dilatation carried up to the full extent of what the meatus will admit. When this point is reached, however, we find ourselves compelled either to cut the meatus—that is to say, *to produce an abnormal condition*, or else to substitute for the sounds some other mode of treatment. It is here that we have to choose between the dilator and the urethrotome, and I believe that, with an in every respect satisfactory dilator at his command, no surgeon who has familiarized himself with the subject on an anatomical as well as clinical basis, will hesitate in his choice. If I have succeeded, as I believe I have, in producing such an instrument, then there will—with the exception of special cases, such as bands, valvular strictures, etc.—be in the future no necessity or justification for internal urethrotomy, with its attendant dangers and doubtful results.

With my instrument the treatment of stricture can go on uninterruptedly. When the largest size sound has been reached that will enter the meatus with ease, I simply substitute a dilator one or a few sizes smaller. In this way not only is the difficulty of the meatus obviated, but the treatment becomes at once superior to that by large sounds, as these, before entering the stricture, push this before them, while the dilator, being a few sizes smaller, enters the stricture readily, and, when engaged, dilates at right angles.

The instrument dilates to about two-fifths of the number represented by the shaft over and above this. Thus I have a number 25 that dilates to 33, a 30 that dilates to 43, a 28 that dilates to 40, etc., etc.

The *modus operandi* is sufficiently simple. The exact location of the stricture having been determined, the dilator is introduced a distance to make the centre of the dilating wedge to correspond with the stricture. One hand then steadies the instrument by means of the ring-handles, while the other slowly turns the screw-wheel until the desired degree of dilatation is obtained. While the index gives at all times accurate information in this respect, and will serve to keep dilatation within safe limits, as defined by the calibre of individual urethræ, I usually stretch until the patient complains of pain. I then either desist, or, generally, wait a few minutes, when usually the pain subsides, and I am able to advance one or two more numbers. In this way I have frequently been able to dilate four or five numbers at a single sitting. After the operation, a memorandum should be made of the highest number that has been reached. In a few days the operation is repeated, a higher number attained, and so on until the bulb-sound determines a satisfactory result. Where resiliency is so prominent a feature in a case that slow and gradual dilatation proves unavailing, the instrument will be found a *perfect divulsor*, by simply turning the screw-wheel rapidly, instead of slowly, up to a point previously determined, after measurement of the urethra and general considerations in individual cases, without regard, of course, to the patient's sensations. I have used it a number of times in this way, and was surprised to find with how little reaction, owing prob-




ably to the broad surface of the dilating wedge. Before withdrawing the instrument, the screw must, of course, be turned all the way back to allow the wedge to sink back within the shaft.

The instrument is so constructed that, after use, the wedge can be removed entirely, and both it and the shaft thoroughly cleaned.

I have no desire to draw comparisons between this and other instruments designed for the same purpose. I will therefore conclude with a brief summary of its chief characteristics, which are:

1. Simplicity of construction and mechanism.
2. The screw and lever plan, insuring irresistible strength and uniformity of pressure.
3. Dilatation parallel and at right angles.
4. A broad dilating surface.
5. Ease of introduction and extraction.
6. Facility of cleaning.
7. Reliability as to dilating at the proper place.
8. Restricting dilatation to the strictured portion and its immediate neighborhood.
9. Positive and absolute immunity of the mucous membrane.

495 Lexington Avenue.

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Acupuncture.—This mode of counter-irritation, which has rather fallen into disuse, is being recommended to the profession again. In rheumatic and neuralgic pains it is often extremely efficient.

London Pathological Society.—Drs. Charcot, Chauveau, Robin, Chonheim, Thiersch, Pirogoff, Schwann, Rindfleisch, and Gross were elected honorary members of the London Pathological Society, November 19th.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 20 to April 26, 1879.*

STERNBERG, G. M., Major and Surgeon. Relieved from duty in Dept. of the Columbia, and to report in person to the Surgeon General for temporary duty. S. O. 95, A. G. O., April 19, 1879.

The following medical officers will represent the Medical Department of the Army at the annual meeting of the American Medical Association at Atlanta, Ga., on May 6th next: Surgeons J. J. WOODWARD, J. S. BILLINGS, WM. H. FORWOOD, and Asst. Surgeon R. M. O'REILLY. S. O. 97, A. G. O., April 23, 1879.

# Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.— Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending April 26, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| Apr. 19, 1879. | 0 | 3 | 188 | 3 | 22 | 33 | 0 | 0 |
| Apr. 26, 1879. | 0 | 6 | 178 | 3 | 43 | 43 | 0 | 0 |

THE AMERICAN ASSOCIATION FOR THE CURE OF INEBRIATES will hold its tenth annual meeting in the parlors of the Young Men's Christian Association, Twenty-third Street, New York City, May 13th and 14th. A very important meeting is expected.—T. D. CROTHERS, Sec.

SIXTH DECENNIAL PHARMACOPŒIA CONVENTION.— To the several Incorporated State Medical Societies, the Incorporated Medical Colleges, the Incorporated Colleges of Physicians and Surgeons, and the Incorporated Colleges of Pharmacy throughout the United States: By virtue of authority devolved upon me, as the last surviving officer of the Pharmacopœia Convention of 1870, I hereby call a general convention to meet in Washington, D. C., on the first Wednesday in May, 1880, for the purpose of revising the Pharmacopœia of the United States. For the information and guidance of all parties interested I refer them to the rules adopted by the Convention of 1870, to be found on page 11 of the Pharmacopœia of the United States, and request their compliance with the spirit and intention of the said rules.—JAMES E. MORGAN, M.D., No. 905 E Street Northwest, Washington, D. C.

THE U. S. STEAMER "PLYMOUTH" AND YELLOW FEVER.—The Surgeon-General of the U. S. Navy has furnished the following facts in regard to the recent outbreak of yellow fever on the U. S. steamer "Plymouth:" on November 7th last, four cases of yellow fever occurred on board the vessel while lying in the harbor of Santa Cruz; these were removed to hospital on shore, and the ship sailed for Norfolk. Three mild cases occurred during the voyage, and the "Plymouth" was ordered to Portsmouth, N. H., thence to Boston. At the latter port everything was removed from the ship, and all parts of the interior freely exposed to a temperature which frequently fell below zero, the exposure continuing for more than a month. During this time the water in the tanks, bilges, and in vessels placed in the store-rooms, was frozen. One hundred pounds of sulphur was burned below decks, this fumigation continuing for two days, and the berth-decks, holds, and store-rooms were thoroughly whitewashed. On March 15th the ship sailed from Boston southward; on the 19th, during a severe gale, the hatches had to be battened down, and the berth-deck became very close and damp. On the 23d two men showed decided symptoms of yellow fever, and on the recommendation of the surgeon the vessel was headed northward. The sick men were isolated, and measures adopted for improving the hygienic condition of the vessel and crew. The surgeon reported that he believed the infection to be confined to the hull of the ship, especially to the unsound wood about the berth-deck, all the cases but one having occurred within a limited area; and that while the "Plymouth" is in good sanitary condition for service in temperate climates, should she be sent to a tropical station probably no precautionary measures whatever would avail to prevent an outbreak of yellow fever.

J. B. HAMILTON.
*Surgeon-General U. S. Marine Hospital Service.*

A SINGULAR RENAL CALCULUS.—Dr. A. E. Lowenthal sends us an account of a very rare form of renal calculus found, accidentally, while dissecting. The calculus filled the whole pelvis of the right kidney and was accurately moulded to the infundibula and calices. It was composed of phosphates covered with a thin layer of uric acid. The kidney itself was two-thirds the normal size and the seat of a chronic diffuse nephritis. The left kidney was enormously hypertrophied and perfectly healthy. The patient died of a pleuro-pneumonia. The history of the symptoms caused by the calculus could not be obtained.

FUNIS PRÆVIA AND THE GENU-PECTORAL POSITION.—Very strong testimony to the value of this position is given by W. J. Burge, of Pawtucket, R. I., who sends the following case: He was called to attend a patient in her third labor, and found the os dilating and the head resting on the anterior brim of the pelvis. Through the membranes the cord could be felt pulsating. The membranes were after a time ruptured when great prolapse of the cord took place. The head remained on the brim of the pelvis, and the labor pains were ineffectual. The patient was placed in the knee-chest position, the hand passed into the vagina and the cord pushed back into the uterus. The pains immediately drove it out, however, and the first attempt was unsuccessful. After waiting a while a second effort was made, the cord was pushed back with one hand and pressure made over the pubes with the other. This time a strong contraction immediately ensued, the head engaged in the strait, the cord remaining up, and in half an hour the child was born alive. Dr. Burge asserts that he cannot be too grateful for Thomas's position; it has served him admirably in three cases.

A PERFUMED SOLUTION OF IODOFORM.—Shake tincture of iodine with a fragment of fused potassa till the color be removed. Cover the odor of the iodoform thus produced by the addition of eau de cologne. Dip lint in this solution, allow it to dry, and one will have an agreeable and excellent application for indolent ulcers, fissure ani, burns, etc.

# Original Lectures.

## THE PERSONAL IDENTITY OF THE LIVING AND OF THE DEAD.

TWO LECTURES DELIVERED BEFORE THE CLASS IN THE AUXILIARY DEPARTMENT OF MEDICINE.

BY JOHN J. REESE, M.D.,

PROFESSOR OF MEDICAL JURISPRUDENCE AND TOXICOLOGY IN THE UNIVERSITY OF PENNSYLVANIA.

(Reported for THE MEDICAL RECORD.)

### LECTURE I.

THE PERSONAL IDENTITY OF THE LIVING AS ESTABLISHED: 1. BY DIRECT EVIDENCE; 2. BY PECULIARITIES IN APPEARANCE; 3. BY MEANS OF THE VOICE; 4. BY THE PRESENCE OF PECULIAR MARKS; 5. BY INFERENTIAL EVIDENCE.—THE IDENTIFICATION OF THE DEAD: 1. WHEN THE INDIVIDUAL HAS DIED RECENTLY; 2. WHEN THE SOFT PARTS HAVE ALL DECAYED.—THE AID AFFORDED BY CHEMISTRY AND THE MICROSCOPE, ETC.

AMONG the various subjects claiming the attention of the medical jurist, that of *personal identity* is by no means the least important. Cases are constantly occurring in the courts of law in which this question of identification comes up as a most important factor in the evidence. For example, it becomes necessary for a person who has been assaulted or robbed, to be able to identify the assailant or robber, when on trial; a witness is strictly examined as to the identity of a person or persons with whom he is acquainted; an alleged child or heir of an estate is compelled to establish his personal identity before the courts before his claim can be sustained, etc. And then, in relation to persons *found dead*—whether in cases of recent death, when the body has undergone but little change, or years after the decease, when nothing remains of the body but the bare skeleton from whence to glean the important information—the question of personal identity acquires the most intense interest, more especially in a trial for murder, where it becomes essential to establish the identity of the alleged victim as the *corpus delicti*.

It is true that the aid of the physician is not so frequently invoked for proving the identity of the living, since this can generally be equally well established by other persons, as friends and neighbors, as by a medical man. Still, there may be occasions of unusual complexity in which a professional opinion may become requisite, as, for example, to verify certain deformities, fractures, scars, and other marks about the person, when there are the evidences on which the identification may be dependent.

I shall consider this subject under the two divisions of: 1, *the identity of the living;* and 2, *the identity of the dead.*

#### THE IDENTITY OF THE LIVING, AS ESTABLISHED:

##### 1. *By Direct Evidence.*

This may usually be established, 1, by the *direct evidence* of witnesses who have known the person long enough to have had his appearance sufficiently impressed on their memory; such is the testimony of acquaintances, neighbors, friends, and relatives. Although among the myriads of the human family it is very rare to find any two persons exactly alike in all points, yet remarkable instances have occurred where the personal resemblance has been so striking as to have baffled even the skill of the detective; and this resemblance has been made even still stronger by the existence of similar marks, cicatrices, or certain peculiarities of structure in both individuals. Some striking illustrations could be given of the extreme difficulty—amounting at times to an impossibility—of deciding the question, which also show how easily witnesses may be mistaken in their evidence on this subject. I shall only refer to two. In the year 1560 the celebrated case of *Martin Guerre and Arnaud du Tilh* was tried before the Parliament of Toulouse, France. Martin had been away from his home for eight years, when the person named du Tilh appeared, and represented himself as the long absent man. So great was the resemblance, that his statement was universally accepted by all of Guerre's family, including his wife, four sisters and two brothers-in-law, among whom he lived unsuspected for three years. About this time, however, something occurred to excite suspicions as to the true character of the supposed husband, when he was arrested and brought before the tribunal on a charge of fraud. Upon his examination he gave satisfactory answers to the most minute questions in relation to Guerre's former life. Some one hundred and fifty witnesses were examined during the investigation, of whom between thirty and forty testified, from a lifelong acquaintance, that the prisoner was Martin Guerre, while about the same number swore positively that he was Arnaud du Tilh, whom they well knew; and over sixty, who knew them both, declared that they were unable to say which the prisoner was. Finally, however, the real Martin Guerre appeared upon the scene, when immediately he was recognized; the four sisters who had previously testified that du Tilh was their real brother now admitted their error, and acknowledged the distinction. There being now no doubt of the guilt of the prisoner he was condemned, and afterward executed.*

The other instance is afforded in the recent famous Tichborne case, in which an individual named Orton, with various aliases, undertook to personate an English baronet and heir to a large entailed estate. So successful was his scheme that "he was sworn to be Sir Roger Tichborne by eighty-five witnesses, among whom were Sir Roger's mother, the family solicitor, one baronet, six magistrates, one general, three colonels, one major, two captains, thirty-two non-commissioned officers and privates in the army, four clergymen, seven tenants of the Tichborne estates, and seventeen servants of the family." The claimant also gave proof of "a fish-hook wound on the eye, of a mark of bleeding on the ankle, and of a peculiar scar on the head," all of which the genuine Sir Roger possessed. The case, however, broke down on cross-examination, many circumstances being proven against the claimant, which I have not now the time to enumerate. Suffice it to say that a verdict was taken against the claimant, and that an indictment was since found against him for perjury.

Now, as a fair inference from the above two remarkable cases, I think we may assume that appearances are *not* conclusive evidences of identity. In the language of a writer in the *London Spectator*, "a very large proportion of ordinary persons are very untrustworthy witnesses to identify, when dependent on appearance alone. They are, either from nature or habit, incapable of appreciating *form*, and form alone is the

*Wharton & Stillé's Med. Jurisp., Vol. II., p. 1092.

unerring proof of personal identity. The difficulties in the way of identification, more especially of the dead, are to them insuperable." This writer, moreover, suggests, as a reason for this difficulty in identification from mere appearance, what seems sufficiently plausible, "that something like color-blindness affects this matter of identification; that there is a large number of persons whose evidence upon any question of identity, though perfectly honest, is worthy of very little trust; that men, upon this, as upon most other matters, are guilty of an unconscious carelessness like that which makes testimony about figure statements so often valueless."

A remarkable instance of what has been named false evidence of *diversity*, as distinguished from that of identity (and honestly supported), is afforded in the case of Lord Aberdeen, the young English nobleman who was drowned in this country a few years ago. This young man, heir of one of the oldest British peerages, and of excellent personal character, was seized with a romantic passion for a sailor's life. He came over to New England, and, under an assumed name, threw himself among common seafaring men, acquired their language, and adopted their habits and pursuits, so that he passed among them as a companion of their own social order, with perhaps some advantage of former education. One day he was lost overboard in a storm, and was drowned. Soon afterward search was made for the missing nobleman by his friends and family in England, no expense or pains being spared to ascertain the particulars of his death, and especially to establish the *fact* of the death; but it was, I believe, found to be exceedingly difficult, if not impossible, to procure such evidence from his sailor companions (who regarded him merely as one of themselves), as would seem to identify him as the heir of an earldom. This case will serve to illustrate what is called by another "the vehement antagonisms of evidence in cases of disputed identity."

### 2. *By Peculiarities in Appearance.*

A second means of establishing the identity of the living, especially in a criminal, is by certain peculiarities in the appearance which are noticed at the time of the commission of the crime, and which are therefore apt to leave a strong impression on the senses, such as (*a*) *size*, when the individual is very tall or very short, very corpulent or very slim; (*b*) *dress*, where a portion (sometimes it may be a mere shred) of the prisoner's dress is discovered near the seat of the crime, which exactly corresponds with the rest of the garment found in his own house.

### 3. *By Means of the Voice.*

A third means is by the *voice*. Peculiarity of voice always makes a strong impression upon those who observe it, and constitutes a valuable aid in identification.

### 4. *By the Presence of Peculiar Marks.*

A fourth means is by the presence of certain peculiar marks, either natural or acquired, about the person, such as moles, scars, cicatrices, deformities, fractures, etc. Such marks are usually well known and remembered by the friends and neighbors of the individual, who can usually identify them. Some of these remain upon the body during life; others gradually decline and fade away. In relation to *tattoo-marks*, Prof. Casper's opinion is that some of them (the red ones) are gradually obliterated by time, whilst the black and purple ones are more permanent. A cicatrix is permanent during life if there has been any original loss of substance. It may not always be distinguished from the surrounding skin until the part be smartly rubbed, when the white scar is immediately manifested on the red surrounding skin. You should be cautioned against too strong a reliance upon scars as a means of identity, since these may at times be discovered upon another precisely alike, both in form and situation. Under this head I would also mention the appearance of the *hands* as often indicating the nature and character of the occupation of the individual.

*Photographs* and other *portraits* of the suspected person are sometimes useful aids in the identification of the living as well as of the dead.

### 5. *By Inferential Evidence.*

Another valuable means of establishing identity is by *inferential evidence;* as when a person strongly resembling the accused was seen in the neighborhood of the alleged crime. Also by *footprints* which are shown to exactly correspond with the boots of the accused, and by impressions made on the ground by other parts of the body, as the knee, and which correspond with prisoner's dress. I may mention, finally, under this head, certain *suspicious circumstances* connected with a criminal which may go far in establishing his identity; such as some peculiarity in his conduct noticed about the time of the commission of the crime; evidence of his having used his *left* hand in an assault upon another or upon himself, if found to be left-handed; a connection between the prisoner and some article found near the scene of crime, as a weapon, or a bullet which exactly fits a mould in his possession, or the wadding of a gun shown to be composed of paper a portion of which is discovered still in his possession, etc.

## THE IDENTIFICATION OF THE DEAD.

This may have reference (1) to the body recently dead; and (2) when the soft parts have disappeared by decomposition, and the skeleton only remains, or detached bones merely have been discovered.

### 1. *When the Individual has Died Recently.*

If the body is found unmutilated, many of the same general methods for establishing its identity are available as have already been mentioned in the case of the living; such as the testimony of friends and acquaintances as to the personal appearance of the deceased; clothing; certain marks upon the person, as moles, nævi, cicatrices, deformities, fractures, tattoo-marks, etc. Photographs and other portraits are also admissible, but are by no means reliable proofs.

If the body, after death, has been subjected to mutilation, and the severed portions removed to a distance from one another, and some of them even destroyed, as is sometimes done by a murderer, with a view to escape detection, the difficulty of identification is, of course, much increased; nevertheless, if the disconnected parts can be recovered, or even a portion of them, it will always be possible for a skilled anatomist so to readjust them as to build up the body again, as it were, by making the proper allowances for the deficient parts, and comparing these with other average specimens. Several striking examples of this are given in the books; I shall allude to only two. One of these is a well-known case which occurred in this country about thirty years ago—that of Dr. Parkman, who was murdered by Dr. Webster, of Boston, Mass. After the death of his victim, Dr. Webster attempted to destroy all evidences of the deed by cutting

up the body into fragments, some of which were burned in a grate, some immersed in chemicals, and others packed away in boxes in distant parts of the building. On the discovery of these remains, a week after the murder, the portions of the body were accurately examined; it was proved that they were human remains, of one and the same body, and of the male sex; and that they had not been dissected for anatomical purposes, but cut and hacked in different directions, for the object merely of mutilation. On restoring these parts *in situ*, and supplying the deficient portions, the proper measurements agreed closely with those of the missing Dr. Parkman. This circumstance, together with the discovery of certain marks of identity about the teeth and jaws (the head had been almost completely destroyed by fire), afforded sufficient evidence of the personal identity of the missing gentleman to enable the jury, on the trial of Dr. Webster, to find a verdict of guilty. The other instance is that recorded by Dr. Taylor, in his work on Medical Jurisprudence. A number of years ago a murder was committed on the river Thames, and a short time afterward a package containing mutilated human remains was found on one of the abutments of the Waterloo bridge. The murderer had, no doubt, intended to throw this bundle into the river, but it had been arrested in its descent. Dr. Taylor was asked to identify these mutilated remains; and when, after great difficulty, the parts were brought together, and found to fit, the body was identified as that of the murdered man—a Swedish sailor.

2. *When the Soft Parts are all Decayed.*

When the question of identity relates to the skeleton merely, or to portions thereof, the answers cannot always be so satisfactory; and the medical jurist has need of much caution and reserve before giving a positive opinion.

The very first thing for him to determine is whether the bones submitted to his inspection are human, or do they belong to some of the lower animals. Certainly, if the entire skeleton is discovered, there need be no doubt whatever on the subject; but if only a single bone or two be found, a mistake may easily be made, except by a practised anatomist. Indeed, some ludicrous blunders are recorded of persons of education mistaking the bones of the ox, horse, dog, pig, and goat for those of the human subject.

*The Aid afforded us by Chemistry and Microscopy.*

But you will no doubt ask, will not chemistry and microscopy assist us in such an instance? As regards the former science, I can at once and positively answer, no. The bone of man has precisely the same chemical elements as that of any other animal. The microscope does throw a little light upon the subject. The bone-cells, or corpuscles, are of different sizes in the various orders of animals. They are largest in the reptiles, and smallest in the birds. There is a striking analogy between the size of the bone corpuscles and that of the red blood-corpuscles among animals. The red blood-corpuscles of the reptiles are largest, and those of the birds smallest. The bone-cells of mammals occupy an intermediate position. The bone-cells of fishes are altogether different from those of all other animals. But, having had this much assistance, the microscope cannot distinguish the bone-cell of a man from that of any other mammal, for the bone-cells of the mouse, of the elephant, and of man are all alike; hence you see that the knowledge which the microscope gives us here is not of so much value after all.

# Original Communications.

## ON THE MECHANICAL TREATMENT OF CHRONIC INFLAMMATION OF THE HIP-, KNEE-, AND ANKLE-JOINTS,

BY A SIMPLE AND EFFICIENT METHOD—THE PHYSIOLOGICAL METHOD—WITH CASES.

By JOS. C. HUTCHISON, M.D.

(Read before the Kings County Medical Society, March 18, 1879.)

I DESIGN in this paper to describe a plan for the mechanical treatment of inflammation of the hip-, knee-, and ankle-joints by methods which seem to me to be more simple, effective, and agreeable to the patient than those hitherto employed.

It may be stated at the outset that morbid conditions of the joints are, as a rule, essentially chronic, and whether the disease originates in the synovial membrane, the cartilages, bones, or investing fibrous capsule, ultimately the morbid action involves all the tissues, so that, without the previous history as a guide, it is often impossible to determine in what tissue the inflammation began. It is to my mind merely a pathological refinement, in most cases, of joint disease, especially in childhood, to attempt to describe the symptoms indicating distinct pathological states of the individual structures composing a joint. The treatment would be essentially the same whether one or all of the articular structures are simultaneously involved.

The indications for the mechanical treatment of inflammation of the joints of the lower extremities are to secure *immobility, extension, the removal of the superincumbent weight of the body, and means of enabling the patient to take open-air exercise.* The accomplishment of these indications, and the use of judicious medication and proper hygienic influences, comprehend all the principles of treatment.

*Immobility* of an inflamed joint, absolute and complete, is a primary and essential condition of its local treatment. The more effectually this is secured, the more rapidly and perfectly the joint recovers its normal condition, and the less danger there is of its being permanently damaged. The greatest obstacle to recovery is friction of the inflamed surfaces. I do not mean a mere limitation of the movements of the joint—such "rest" as is obtained by placing the limb upon a soft bed or pillow—but the perfect fixation secured by a splint or other means, which admits of no motion whatever. I am aware that many excellent surgeons believe that the danger of irreparable structural change and anchylosis of the joint is very great from prolonged fixation. This I am sure is an error. There may be a temporary anchylosis, such as arises from a diminution of the elasticity of the articular cartilages, and an enfeebling of the ligaments and muscles from disuse; but such changes are, or need be, only temporary, for by careful and steadily increasing use, reparation takes place in all these structures, and after a time they show no defect. I have never seen true anchylosis when the joint has been immovably fixed until the inflammation has subsided, except in cases of extensive destruction of the joint structures, in which case a cure by anchylosis is the thing to be desired. Exceptional cases no doubt occur, but the anchylosis takes place more commonly when fixation is incomplete, and more or less motion and friction

are permitted before the inflammation has entirely subsided.

The object of extension is (1), to correct the malposition of the limb. An inflamed joint is never straight; it involuntarily becomes flexed, nor is it possible for the patient to prevent or change this position. The flexion takes place slowly, almost imperceptibly, but surely, even when the limb has been permitted to rest quietly in bed undisturbed either by the patient or nurse; the degree of flexion depends upon the intensity or the duration of the disease. Every joint, when it becomes inflamed, assumes a characteristic *position* which it is important to know, not merely as a diagnostic sign, but also as a point which may be made useful in treatment. When the *hip-joint* is inflamed, the thigh is flexed on the pelvis, and, as a rule, is slightly adducted. The *knee-joint*, when inflamed, is always flexed more or less. In the case of the *ankle-joint*, the foot is flexed upon the leg, the heel is raised by the gastrocnemii, and the toes pointed downward. The *improper position* which the joint assumes should be corrected as soon as possible, even when the inflammation is acute; this is important in order that the different structures of the joint may not be kept in a state of undue pressure, or of inordinate tension, either of which interferes with healthy nutrition, and so conflicts with the curative process. As the joint becomes straightened under the influence of extension, the patient experiences an almost immediate diminution of pain. (2.) By means of extension we also overcome the spasm and contraction of the muscles, which, by reflex contraction, jam together the inflamed articular surfaces, and is the chief cause of pain in joint inflammations; but I do not believe it possible, by any amount of extension that can be applied, to separate the inflamed and swollen interior surfaces of the joint so as to relieve them from pressure and the consequent pain. What we do accomplish by extension is the relief of spasm and muscular shortening; and to quiet the muscles is an imperative therapeutic axiom.

The necessity for securing the beneficial effects of out-door air by means of some portative apparatus which removes pressure from the inflamed joint is now so generally appreciated that we need not urge its importance.

The special methods of meeting the above indications will be described when we consider the treatment of the diseases of particular joints.

### HIP-JOINT DISEASE.

The American Journal of the Medical Sciences for January, 1879, contains an article by the writer "On the Treatment of Morbus Coxarius by a New Method of Extension; the Physiological Method; with Cases," and I propose on this occasion to illustrate the method by exhibiting some patients who are now undergoing the treatment, and to show that the various kinds of portative apparatus now in use do not accomplish what is claimed for them. It is my purpose also to demonstrate that the "physiological method of extension" is quite as useful for the treatment of inflammation of the knee- and ankle-joints as it is for morbus coxarius.

For many years Harris, of Philadelphia, and others, treated morbus coxarius in bed by extension and fixation of the joint with the long splint formerly used for fracture of the thigh, with moderately satisfactory results; and in 1855, Dr. H. G. Davis, of New York, described a new portative apparatus designed to produce extension while allowing motion of the joint, and permitting the patient to enjoy the benefits of out-door exercise, so important in the treatment of this disease. It was claimed also by Davis and his followers that confinement to bed with the long splint applied, fixing the joint, not only impaired the general health, but increased the risk of anchylosis, which would leave the patient in a worse condition than if left to the tender care of Nature herself.

This new method of treatment awakened the interest of surgeons generally, and very soon afterward Sayre improved or modified Davis's instrument, and, with the enthusiasm of an ardent nature, brought the new treatment prominently into notice, and by papers and lectures did more to secure its general adoption than the originator himself had done. The instruments of Taylor, Vedder, Washburn, and that devised by myself, are also modifications of Davis's, designed to accomplish the same indications, viz.: *mobility of the joint with extension.*

Barwell, Andrews, of Chicago, Bauer, now of St. Louis, and Thomas, of Liverpool, believe that the indications for the proper treatment of the disease are to secure *immobility of the joint with extension*, and they have respectively devised very ingenious instruments to accomplish this purpose; while Professor Hamilton's wire-gauze apparatus was designed merely to secure *immobility of the joint without extension.*

All these appliances are familiar to you, except that of Thomas, of Liverpool, which I will briefly describe. It consists of a flat piece of malleable iron, from three-quarters of an inch to an inch in width, by one-quarter in thickness, which extends from the lower angle of the shoulder of the affected side in a perpendicular line downward to the calf of the leg. A strap of hoop-iron is riveted to the top of the upright, and nearly encircles the body a little below the axilla; another strap of iron, half the circumference of the thigh, is fastened to the upright just below the fold of the buttock; and a third, half the circumference of the calf, is riveted to the lower extremity of the upright. The instrument is carefully moulded to the inequalities of the body by means of wrenches, and is well padded and covered with leather. The apparatus having been applied, the patient is allowed to walk on crutches with a patten on the sound foot, so as to elevate the diseased limb two or three inches from the ground.

This apparatus will not permit the patient to sit down, and renders defecation very inconvenient.

We have therefore three classes of portable appliances in use for the treatment of morbus coxarius, all of which, with due respect to the ingenuity of their respective authors, I feel called upon to condemn: (1), because they do not achieve the objects for which they are designed; and (2), if they did, they are cumbrous and uncomfortable, and therefore should be abandoned, because the same indications can be accomplished by a method simpler and more comfortable to the patient.

The theory that motion and extension are obtained by the apparatus of Davis and his followers is a great deception. If you notice a patient wearing Taylor's or Sayre's long splint (modifications of Davis's), those most frequently used here, you will see that when he walks the whole pelvis swings, and there is no motion at the hip-joint.

This immobilization of the joint a kind Providence has secured, in spite of the efforts of the surgeon to prevent it. You will also observe that there is no extension made by the instrument, as the inventors claim, because the strap which is designed to produce extension, and passes from the ends of the adhesive plaster beneath the extension bar, is slackened

at every step. This I have noticed lately in a number of cases in one of the hospitals of the city of New York, where there is a large orthopædic ward under the care of an accomplished orthopædic surgeon, who uses Taylor's apparatus. The instrument merely transfers the weight of the body from the hip-joint to the perineal band, but the extension is made by the weight of the limb alone.

The apparatus of Andrews, Barwell, and Bauer are equally inefficient in securing the objects for which they were designed; viz., to render the joint immovable and to produce extension of the limb. Thomas's instrument, by its long leverage, extending from the angle of the scapula to the calf of the leg, has some control over the movements of the joint; but it is unnecessary for this purpose, and, as already indicated, is very inconvenient to the patient; while the wire-gauze apparatus of Prof. Hamilton can have but little influence in producing immobility, because it does not extend far enough above and below the joint.

Why is it, then, it may be asked, if the appliances referred to are insufficient to accomplish what is claimed for them and are deceptive, that so much improvement has been reported from them when compared with others not having their features? For my own part, I am in the habit of explaining these favorable results by the fact that the use of the instruments devised by American ingenuity has liberated patients from in-door constraint, and enabled them to live and move and exercise in the open air, instead of being treated in bed as was formerly done; and also from the fact that the principal indications, immobility and extension, are achieved in spite of the apparatus used.

We have already considered the indications for the treatment of hip-joint disease, and also for the treatment of inflammation of the knee- and ankle-joints. They are: (1), to secure immobility of the joint; (2), to make extension; (3), to take off the superincumbent weight of the body; (4), to provide means to enable the patient to take open-air exercise; and I desire to demonstrate that they can be accomplished with comfort to the patient and convenience to the surgeon by the simplest expedients.

The method of treating hip-joint disease which I commend to your attention, after having used it exclusively for the last two years, is illustrated on the little patient before you (Figs. 1 and 2). To the shoe of the sound limb a steel plate, corresponding to the sole of the shoe, is attached by upright rods two and a half or three inches in length, so as to raise the foot from the ground; it is the shoe ordinarily used for shortened leg. This elevated shoe and a pair of crutches constitute the apparatus. As the patient stands on his crutches the diseased limb is suspended. The shoe is high enough to prevent the toes of the affected side from touching the ground, and the sole should be covered with leather to avoid noise when walking.

Here are brief notes of the cases taken from the records of the Orthopædic Infirmary. The first case is that of Henry S., and the record was made by Dr. A. R. Paine.

He is five years old, and was brought to the dispensary for treatment Feb. 4, 1879. His mother states that he began to have trouble in his left hip-joint eight months previously; that he had had pain in the hip and also in the knee from that time to the present, increasing at night; and that for some time he had not been able to walk. An examination revealed the existence of well-marked morbus coxarius, as indicated by the following symptoms: considerable fulness in the gluteal region, obliteration of the gluteal fold, the thigh slightly flexed upon the body; there is apparent anchylosis at the hip-joint, the pelvis moving with the femur; the effort to move the joint produces great pain; there is also pain on pressing the trochanter inward and when the foot is jarred. The elevated shoe and crutches were ordered for him.

He was seen a second time Feb. 21st. Has used the shoe and crutches about a week. The first day he tried them he was run against and knocked down, falling of course upon the lame hip; he suffered a great deal from the injury, cried all night, and the flexion of the limb was greatly increased, but on getting upon his crutches in the morning the pain subsided and the limb gradually resumed its former position. Since that time he has had much less pain and goes about easily and comfortably. March 11th, the mother says the boy is doing "splendidly;" he has no pain day or night, and the position of the limb is good. The case is before you, and speaks for itself. There is every reason to suppose that it will progress satisfactorily.

Fig. 1.

Fig. 2.—Shows the shoe alone.

Case II.—Morbus coxarius (third stage); progressive improvement by the use of the elevated shoe and crutches.

This little boy, three years old, was brought to the Orthopædic Infirmary, Feb. 14, 1879, and the record of his case was made by Dr. H. W. Rand.

The parents think the present trouble commenced when the child was six months old. He is tolerably well nourished, and gives no history of injury. When he began to creep it was noticed that he favored the right leg. Two months later swelling appeared around the hip-joint, most prominent in the groin, where it was opened by the family physician, discharging a thin yellowish fluid.

Since the child began to walk he has always borne the most weight on the ball of the foot, rarely allowing the heel to touch the floor, owing to flexion of the thigh on the trunk. He complained of very little pain until December of last year, since which time

pain has been almost constant and referred to the hip-joint.

When presented at the infirmary, the thigh was flexed on the abdomen, foot inverted, pelvis drawn up on the affected side, nates flattened, and gluteo-femoral crease lowered. Movement of the thigh excited spasmodic action in all the muscles around the joint, producing apparent anchylosis of the hip-joint, the pelvis moving with the femur. Pressure of the head of the femur against the acetabulum and pressure behind the trochanter caused pain.

Ordered elevated shoe (2½ inches) for left foot, and crutches.

Patient returned March 4th. Has learned to walk with the crutches and has had no pain for the past week. When last seen—March 11th—he was still entirely free from pain. Movement excited less spasmodic action in the muscles around the joint, and the flexion of the thigh on the abdomen had somewhat diminished.

A point of interest in this case is the early period at which children may be taught to use the elevated shoe and crutches.

The third case I bring forward as an illustration of complete recovery from morbus coxarius (third stage), treated by the elevated shoe and crutches. This case has been fully reported in the January No., 1879, of *Hays' Journal*, from notes by Dr. Paine, and I will not repeat it here. An examination shows that the position of the limb and foot is perfectly normal; there is no shortening; the joint moves freely in all directions without pain; the most careful scrutiny reveals no evidence of disease, and he looks and feels well. He was under treatment at the infirmary for eight months, when his recovery was pronounced complete.

By the simple appliances shown upon the patients whom I have presented to you this evening we fulfill all the indications for the mechanical treatment of hip-joint disease, and I desire to emphasize the statement that whatever artificial appliances for fixation and extension may be added, they simply tend to increase the discomfort of the patient.

*Immobility*, which it is just as important to obtain in the treatment of inflammation of this as of other joints, is secured by reflex contraction of the peri-articular muscles, aided by intra-capsular effusion, and the voluntary effort of the patient to keep the joint at rest on account of the pain which motion produces. Fixation of the joint is one of the earliest and most characteristic conditions in morbus coxarius; and it is so marked, that when we move the limb, the pelvis moves with it; there is apparent anchylosis. This rigidity continues until nature says immobility is no longer necessary; but so long as it is necessary, she secures it better than we can by any artificial appliances. In the later stages of the disease motion is desirable, and gradually, as the inflammation subsides, the muscles become relaxed, motion returns, and anchylosis is prevented, except in extensive destruction of the joint surfaces, in which case a cure by anchylosis is the thing to be desired.

*Extension* is made by the weight of the suspended limb, which is equal in weight to one-fifth of the whole body, is greater than the weight ordinarily employed for extension, and is quite sufficient to subdue the spasm of the muscles which crowd the head of the bone into the inflamed acetabulum and is the chief cause of the pain which the patient experiences. We all know how promptly contraction of the muscles of the extremities, in cases of cholera or from other causes, is overcome by forcible extension. The pain in the part is relieved not by separating the inflamed articular surfaces as has been claimed, for we cannot separate them to an appreciable extent by any amount of extension that can be applied. The extension not only relieves pain, but it corrects the *malposition* of the limb, whatever it may be, and prevents the deformity which would otherwise occur from contraction of the muscles or partial dislocation of the head of the bone. By means of the elevated shoe and crutches *the weight of the body is removed from the diseased joint and the patient can enjoy all the benefits of open-air exercise*, conditions so evidently necessary as to require no special consideration.

It seems to me probable that the method of extension here described is both more efficient and more agreeable to the parts concerned, by reason of being more gradual, equable, less arbitrary and constraining, and, therefore, exciting a less degree of reflex resistance than most other methods. There is a certain degree of instinctive, unconscious recoil in the mind of every patient, young or old, against all the various devices of constraint or imprisonment which a splint or apparatus implies.

This plan of treatment should be adopted at once, whatever the stage of the disease, and continued until the cure is completed, except in the comparatively rare form of arthritic coxalgia, where acute inflammation of the synovial membrane and other soft structures of the joint is suddenly developed, attended with great constitutional disturbance and excruciating pain, increased by the slightest movement of the limb or the shaking of the bed. In such cases it would be inappropriate at first. Until after the acute symptoms have subsided they should be treated in bed with the long splint and the weight and pulley, together with other appropriate remedies.

There may be cases in which it will be necessary to make extension at night, by the weight and pulley, to relieve the usual nocturnal pain, while the elevated shoe and crutches are used during the day, but I have not thus far met with any, even among those who had used the night extension, with some portative apparatus during the day, up to the time they came under my treatment.

The patient soon learns that relief from pain is obtained by suspending the diseased limb, and then he is glad to walk or stand on the crutches three or four hours daily. This appears to be sufficient to relax the muscles to such a degree that spasmodic contraction, with the accompanying pain, does not take place at night.

For children who are too young, and older persons who are too feeble to use common crutches, Darrach's wheeled crutch, or the ordinary go-cart, are admirable aids to locomotion. Darrach's crutch is the best, as it is so constructed that the patient may be partially suspended in the crutch, if necessary, by a perineal band, which prevents fatigue, and it is also lighter and more elegant in construction. The elevated shoe should be used with either instrument. If a case comes under treatment at so advanced a stage that resection is necessary, the elevated shoe and crutches should be used after the active symptoms following the operation have subsided, instead of adopting the usual practice of confining the patient to bed and using the weight and pulley.

### THE KNEE-JOINT.

From the diseases of the hip-joint we will descend to those of the knee; but we must take the metaphor in an anatomical, not a surgical sense; for the frequency with which inflammation occurs in the knee-joint, owing to its complicated mechanical machinery

and its exposed position both in relation to atmospheric changes and liability to injury from violence, invests the subject with an interest to the surgeon quite as great, if not greater, than that which pertains to the hip-joint.

For the morbid conditions of the knee-joint the indications for treatment are in all respects the same as for inflammation of the hip-joint, with the addition of *compression* over the joint.

The knee is not, like the hip, surrounded by powerful muscles, which by their rigidity immobilize the diseased hip-joint. It is necessary, therefore, in the case of the knee, to bring to our aid some mechanical restraint in order to effect complete rest. To secure *fixation* of the knee-joint, I use splints made of hatter's felt, such as you see on the patient before you (Fig. 3). It consists of seven layers of cotton-cloth saturated with shellac, and well rolled together while hot. It is manufactured of this thickness specially for me, by Mr. Holley, of South Fifth Avenue, New York, and may be obtained from Tiemann, and I suppose other surgical-instrument makers. That ordinarily sold consists of but five layers of cloth, which for most cases is not firm enough. To give effectual rest to the joint, the splint should be of sufficient length, and wide enough to nearly surround the limb; it should extend half way up the thigh, and to a corresponding point below the knee. A shorter splint, merely wide enough to cover the posterior part of the limb, does not secure the complete immobility which I have insisted upon in the treatment of diseases of the joints, where absolute rest is demanded. The splint having been cut of the proper length and width (the material is easily cut with a sharp knife), and the limb covered with a stocking, the felt made pliable, preferably by dry heat in an oven or before an open fire, or by immersion in very hot water, is applied to the limb and covered quickly, and firmly with a bandage from below upwards, so as to mould it to all the inequalities of the surface. While the splint is being applied an assistant should make extension from the foot, so as to straighten the limb as much as possible in cases where the joint is flexed; but no violent effort should be made to reduce the malposition; this can usually be accomplished by the gradual, painless (physiological) extension made by the weight of the limb, to which we shall presently refer. The joint surfaces are morbidly sensitive to pain, which would be greatly increased if they were suddenly and forcibly pressed together in the effort to reduce the deformity at once. If the surgeon's hands are very sensitive to heat, he may handle the splint better by wearing a pair of cotton gloves wet in tepid or moderately cold water. So soon as the splint regains its inflexibility, and this it does very quickly, it may be removed, trimmed up, and holes punched an inch or an inch and a half from the front edges for lacings. The object in punching the holes a little way back from the edges is to permit the splint to be made smaller by cutting off the edges, so that pressure may be kept up as the knee diminishes in size. The splint should nearly meet in front, and be laced as tightly as the patient can bear with comfort; all the benefits of elastic pressure may be secured by surrounding the knee with a layer of wool-wadding, which never becomes matted, never loses its elasticity, and is an extremely comfortable method of making pressure, if the patient should complain of discomfort from the splint. If in any case it is considered desirable to leave the top of the knee uncovered, a semicircular piece may be removed from either side of the splint, and windows may be cut at any point where there are fistulous openings which require dressing. The splint may be made more comfortable in warm weather by perforating it here and there with a punch. If the leg is rotated on its longitudinal axis with a tendency to inversion or eversion of the foot, this should be prevented by extending the splint down to the foot.

Fig. 3.

If the leg is flexed when the splint is first applied, and cannot easily be forced into a straight position, the angle of the splint should be changed from time to time, as the leg becomes straighter under the influence of extension by its own weight. This may be done by softening the posterior part of the splint by the application of a sponge dipped in hot water; a bandage should then be firmly applied, while extension is made upon the leg by the hands of an assistant. So soon as the splint hardens, the bandage is removed and the lacings tightened. The splint, although firmly applied, does not interfere with the straightening of the joint by the extension made by the weight of the leg.

I prefer the felt splint to one made of plaster-of-Paris, leather, or liquid glass, because, while it is equally firm, it is also lighter, adapts itself just as well to the inequalities of surface about the knee, is more easily applied, its angle may be changed without removing it from the knee, and it may be unlaced and opened to examine the parts, or even removed, without disturbing the joint.

By means of the knee-splint we not only fix the joint and contribute to correct its malposition, but we also make *compression* upon the part, which is a valuable therapeutic auxiliary in the management of these cases, and its importance must not be overlooked. Compression causes absorption of non-purulent effusions into the joint, removes the boggy, infiltrated condition of the connective tissue which surrounds it, protects the part and gives support to the relaxed ligaments and synovial membrane.

*Extension* is best accomplished by the use of the elevated shoe and crutches which have already been described in considering the treatment of hip-joint disease. (Fig. 1.) The weight of the suspended leg, which may be estimated as one-twelfth to one-tenth of the weight of the body (eight to ten pounds in a body weighing one hundred pounds), is quite sufficient to tire out the muscles, which by reflex contraction compress the already suffering tissues within the joint, increasing the pain and leading to interstitial absorption—in short, the muscles are restored to their length. By means of extension we also correct the malposition of the limb, which is usually contracted to an angle of 120°; but extension has not the slightest influence in separating the diseased articular surfaces, nor do I consider this necessary. This method of extension is so gradual and equable, and therefore so agreeable to the parts concerned, that the muscles are persuaded to relax, if such an expression is permissible in this connection, instead of being irritated and stimulated to contraction.

The apparatus of Prof. Sayre for producing extension of the diseased knee-joint, as well as the appliances of H. G. Davis and Sherman, of Chicago, for the same purpose, are creditable to the inventive genius

of their respective authors; but those of you who have used either of them must be aware of the skill and experience necessary to apply them properly, the constant attention they require to keep them suitably adjusted, and the discomfort to the patient produced by the irritating effects of the adhesive plaster by which they are attached to the limb. Moreover, the effort to produce forcible extension by these various devices excites reflex resistance, and the patient, young or old, instinctively recoils from the attempt to overcome muscular contraction by an exertion of strength applied by means of an apparatus.

*The weight of the body being removed from the diseased joint* by the use of the elevated shoe and crutches, the patient should be kept out of doors as much as practicable, and if old enough to understand the rationale of the treatment, the importance of using the crutches three or four hours daily should be explained to him, and, if necessary, their employment enforced. Patients should also understand the importance of keeping the joint at rest. They not infrequently complain of the restraint of the splint, and secretly remove it themselves (I speak especially of dispensary patients), not because they really suffer pain from the position or confinement of the limb, but because they are afraid of losing the use of the joint. I mention this, not to induce you to shut your ears or disregard the complaints of patients—on the contrary, I think they always deserve attention—but to warn you against deceit from this cause.

There are many mild cases of chronic inflammation of the knee-joint characterized by slight effusion into the joint and tenderness on pressure over the lower part of the inner condyle of the femur, or at the inside of the head of the tibia, in which there is no pain on pressing the articular surfaces together. In such cases the application of the knee-splint is sufficient to effect a cure without the use of the elevated shoe and crutches.

When the disease has resulted in destruction of the joint and caries, either from the violence of the attack or the advanced stage of the disease when it came under observation, we may still hope to save the limb and secure a cure by anchylosis. In fact, by rightly carrying out the indications above referred to, of which the first in importance in all joint inflammations is perfect immobility of the part, the most unpromising cases not infrequently recover; but if the patient is becoming exhausted by suppuration and there is not sufficient reparative power left to throw off the disease, resection or amputation may become necessary.

### THE ANKLE-JOINT.

In the treatment of inflammation of the ankle-joint and its consequences, *perfect rest* of the parts (mechanical immobilization), and the *removal of pressure* from the diseased articular surfaces, is quite as important, and I may add quite as satisfactory as in the diseases of the hip and knee, and the indications may be met in the same way. Instead of the felt, I prefer to use for fixing the ankle, two splints made of plaster-of-Paris, because they adapt themselves better to the inequalities of the surface about this joint, one to be applied in front and the other behind, extending from the middle of the leg to the ends of the metatarsal bones, and wide enough to leave an interval of half an inch between the edges on the inner and outer side. The splint should be made of two thicknesses of Canton flannel with coarse meshes, or three thicknesses of coarse towelling cut of the proper length and width. One layer of cloth is laid upon a table and covered with liquid plaster of the consistence of cream, and spread smoothly with a table-knife. The other layers are then immersed in the plaster and applied evenly and smoothly over the first; and when both splints have been prepared, one is applied in front and the other behind, with the under surface of the first layer, which is not covered with plaster, next to the skin, and covered with a roller bandage firmly applied from below upward. The surgeon should now grasp the foot, and holding it at a right angle to the leg, make extension until the plaster hardens, which requires about five minutes. The bandage should then be removed and the splints surrounded by three or four strips of adhesive plaster, and the bandage reapplied more loosely. Windows may be cut in the plaster so as to allow any openings that may exist in the parts to be uncovered. (Fig. 4.)

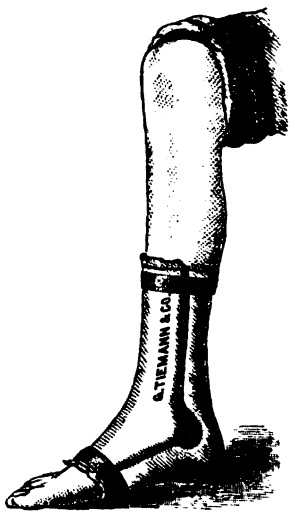


FIG. 4.

In all cases of diseased ankle-joint, the heel is raised more or less by the contraction of the gastrocnemii, and the toes pointed downward, if it is permitted to pursue its own course, and it is important to overcome the contraction of the muscles and place the joint at rest with the foot in its normal relation to the leg, (1) to secure its proper position, should anchylosis take place; and (2) to relieve the pain produced by the unremitting muscular contraction day and night.

To remove pressure from an inflamed ankle-joint, and to provide means for letting the patient get the benefits of the open air, is not less important than in the case of a diseased hip- or knee-joint. To accomplish these essential indications, a variety of instruments have been devised; but they are liable to the same objections which have been found to the appliances used for producing extension of the knee-joint. After an experience somewhat extended in the treatment of these affections, I have no hesitation in recommending the elevated shoe and crutches as the best and simplest method of making extension and removing pressure; it is just as effectual for the ankle as for the knee- and hip-joints. The weight required is not great, and the weight of the foot is sufficient to overcome the muscular contraction.

If the foot, from long neglect, cannot at once be brought to a right angle with the leg, the splints should be renewed every five or six days, increasing

the extension a little at each application, until the foot is brought into proper relations with the leg.

The advantages which the mechanical treatment here described possesses over that commonly employed in the management of the diseases of the lower extremities are:

1. It saves the surgeon the trouble and annoyance of applying and carefully watching the instruments in ordinary use, to see that proper extension is kept up and undue pressure prevented; while the patient's comfort is greatly promoted by dispensing with adhesive plasters, which irritate the skin and require removal from time to time, and also with the perineal band in hip disease, which is a constant source of discomfort.

2. The spasmodic contraction of the peri-articular muscles is overcome by the gentle, persuasive, and painless (physiological) extension made by the weight of the limb for several hours each day; whilst forcible extension, either by the ordinary portative instruments, or by the weight and pulley, irritates the muscles and stimulates them to resistance and contraction, which must be overcome by main force.

3. I am quite confident, judging from the experience thus far obtained, that the plan of managing diseases of the joints herein described will shorten their duration more decidedly than can be done by the older methods of treatment.

4. The apparatus (if so simple a thing deserves the name of apparatus), is inexpensive, and can be made by any ordinary mechanic.

In conclusion, Mr. President, allow me to say that it was with a good deal of reluctance that I ventured to condemn as useless or hurtful the appliances hitherto in use in the treatment of diseases of the hip-, knee-, and ankle-joints, and to commend to professional notice new and simpler methods. I should not have had the audacity to do so, had not my convictions, based upon practical experience, have seemed so plainly to warrant the positions I have endeavored herein to maintain. These convictions have been strengthened also by the favorable opinions expressed of the treatment of hip-joint disease, since the publication of my paper upon the subject, by surgeons in different parts of the country, for whose judgment I have long been accustomed to entertain the highest respect.

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Injury of the Eye Inflicted by the Beak of an Owl.—M. Dufaur reports the following interesting case: A common brown owl had built its nest beneath the projecting roof of a farm-house, where it had a brood of young ones. One day the farmer, moved by curiosity, drove away the old bird, took out the young owls, and, after looking at them, replaced them uninjured in the nest. In the evening, as he was entering the house with his servant, the latter suddenly heard the beating of wings, felt the claws of the owl on his chin, and before he could defend himself, received a blow from its beak directly under the eye. Fortunately the sight was not affected, and the man escaped with some severe pains. On the following day an unsuccessful hunt for the bird was instituted, but in the dusk of the evening it appeared again, and attacked the farmer himself, striking him directly in the eye with its beak. M. Dufaur was consulted, and found a wound of the cornea, one and a half centimetre in length, and an abundant intraocular hemorrhage. The sight of the eye was completely lost, and the other eye was subsequently threatened with sympathetic inflammation. — *Le Mouvement Médical.*

# Progress of Medical Science.

Case of Athetosis—Death from Phthisis—Post-mortem Examination.—H. B., æt. thirty-three, was admitted January, 1877, to Westminster Hospital in an advanced stage of phthisis. When the patient was three years old he had whooping-cough, and soon after two fits, which left him paralyzed on the left side. He gradually gained power, however, in the limb, and at the age of ten could run about as well as other boys. The athetosis appeared soon after the fits, and gradually increased in severity as power was restored. The inco-ordinated movements had not changed much during the past twenty years.

The movements were almost exclusively confined to the left upper limb, and were continuous and involuntary. When the hand was extended with the palm downward, the index and middle fingers were slowly and gradually flexed. The thumb was also adducted, the hand was then supinated, the fingers again extended and the thumb abducted. Pronation of the hand completed the cycle. This type of movement was, however, subject to some variation. When the fingers were flexed it required considerable force to extend them. Patient could slightly control the movements by a great effort of the will. The hand was only quiet during sleep; the movements were so constant that the patient could not use the hand for any of the ordinary purposes of lifting. The left leg occasionally exhibited a somewhat similar condition, but only when he was tired out after a long walk. The movements were increased by worry and trouble, and appeared to be diminished by smoking. There was no loss of sensation in either hand. The muscles on the posterior aspect of the forearm were much more wasted than those on the anterior aspect. The patient died from diarrhœa and exhaustion on March 19, 1879.

*Autopsy.*—Brain: right hemisphere distinctly smaller than the left, about three-quarters of an inch shorter; the posterior half of the middle and inferior frontal convolutions, and, to a slighter extent, the superior and ascending frontal, were distinctly smaller on the right side than on the left; the right parietal convolutions were also smaller on the right side. There was a depression on the anterior portion of the temporo-sphenoidal lobe, about one inch long. There was a deep depression extending backward into the lobe, about three-quarters of an inch deep. The right anterior pyramid was very conspicuously smaller than the left. The convolutions of the island of Reil were apparently normal, but, on the inner side, a deep excavation was found between the anterior extremity of the perforated spot and the convolutions, extending backward to the level of the corpora albicantia, and forward, between the convolutions of the island of Reil and operculum, to the anterior surface of the hemisphere. Anteriorly the fissure was three-quarters of an inch deep, and about two-and-a-half inches long. The sides seemed to have been in apposition except outside the perforated spot, where the cavity was about one-fourth inch wide; its roof was formed by radiating fibres spreading upward from the pons. Upon opening the ventricles, almost the whole of that portion of the right corpus striatum lying in front of the thalamus appeared to be destroyed; posterior portion of nucleus caudatus unaffected. A small portion of the inner part of the corpus striatum near the middle appeared intact, but the

whole of the gray substance was destroyed. The optic thalamus seemed to be quite healthy.—*The Lancet*, Dr. Sturges, March 15, 1879.

THE USE OF THE ACTUAL CAUTERY IN MEDICINE.—In choosing a cautery, it is always advisable to select one with a platinum tip, since this metal will not become rough from long usage. The Paquelin benzine cautery is the most serviceable one hitherto invented, the only objection being its great cost. The Brown-Séquard cautery (which merely consists of an olive-pointed steel cautery-iron about 30 ctms. long, the olive being about 15 mm. in diameter at the base, and carefully covered with platinum), will, however, answer all practical purposes. This may be heated to a white heat in a grate-fire.

The method of application usually adopted is that called "cautérisation transcurrente" by Jobert and Notta, which consists in making very light parallel strokes with the cautery at white-heat over the part chosen as the seat of counter-irritation. From four to twelve strokes can be made in a very short space of time, and with very little suffering; only the cuticle should be affected in order to avoid subsequent suppuration. One error to be avoided is striking hard at the beginning of the strokes, since this causes blistering and suppuration. The only dressing required is the application of a piece of linen. It is often desirable to repeat the cauterization frequently. In spinal affections we may begin at the top and cauterize the entire spinal region systematically and repeatedly by means of daily or tri-weekly applications. The majority of patients consider the pain very slight. It is highly unphysiological to freeze the skin previous to the application of the cautery. Superficial cauterization with the actual platinum cautery has been satisfactorily used in the following conditions:

1. Neuralgia, acute and chronic, of the trigeminus and of the peripheral nerves.
2. Spinal irritation and various cerebral paræsthesiæ (pressure, numbness, etc.).
3. Spinal congestion.
4. Various forms of myelitis, acute and subacute.
5. Epilepsy (not by myself).
6. Intercostal pain.
7. Lumbago, acute and chronic.
8. Articular inflammation.
9. Peri-arthritis (chronic rheumatism?) especially of the shoulder.—*Archives of Medicine*, Dr. E. C. Seguin, April, 1879.

A CASE OF OBSTINATE ULCERATION OF THE NECK OF THE UTERUS CURED BY GRAFTING.—The patient was a prostitute who had been previously treated for pelvic peritonitis. Examination with the speculum showed that the neck of the uterus was very much enlarged and hard, and around the os was a circular ulcer seven-eighths of an inch in diameter, and longer in the vertical direction; its surface was studded with bright red, healthy granulations. The ulceration was treated in a variety of ways for one and a half months without producing the slightest benefit. Grafting of mucous membrane was then resorted to in the following manner: A small fold of mucous membrane was stripped off from the side of the vaginal wall, and was cut in two. The granulations on the ulcer having been scratched below and to the left of the os, the pieces were embedded in the granulations by means of an instrument used for tying deep sutures. Another piece of membrane was cut off and embedded in the granulations above the os. The speculum was left in position, and the patient kept on her back for an hour, at the end of which time a large tampon of cotton, moistened with pure glycerine, was placed against the ulcer, and the speculum was withdrawn. Strict quiet in bed was enjoined, and the tampon was removed the next morning. Five days afterward a pellicle of newly-formed mucous membrane was found to have formed from the three grafts. The remainder of the ulcer retained its red granular appearance. Three days later, the ulcer was all covered with new mucous membrane, except a narrow rim just above the external os. A fresh piece of vaginal mucous membrane was now placed in each external angle of the os and treated in the same manner as previously. When examined, a month later, the site of the ulcer was entirely covered by new mucous membrane.—*Archives of Medicine*, Dr. R. W. Amidon, April, 1879.

SUPPLEMENTARY RECTAL ALIMENTATION.—Rectal alimentation is indicated when there is an obstacle to the introduction of food into the stomach, or to its passage beyond the stomach; or when there is inflammation or ulceration of the stomach, causing ejection of the food; or when there is reflex vomiting to an extent sufficient to imperil life. It is also indicated in the condition known as *weak* stomach, which is usually the result of poverty of blood, due to hemorrhages, protracted suppuration, scrofula, phthisis, renal disease, etc. Insufficient nutrition forms an important factor in almost all these chronic diseases, and the use of rectal alimentation to supplement alimentation by the stomach furnishes a valuable addition to our resources in such cases. Various articles have been used, such as milk, raw eggs, animal broths, Leube's preparation of meat. Dr. Smith obtained much more valuable results from the use of defibrinated blood. In urgent cases, especially when the stomach cannot be called upon to perform its office at all, 30 to 90 grms. of defibrinated blood may be injected into the rectum every two or three hours. For chronic cases, in which it is merely given to aid stomach nutrition, 90 to 180 grms. may be given once or twice a day. An ordinary syringe may be employed, care being taken to cleanse it thoroughly after each injection. If the rectum is irritable, the blood should be gently warmed to the temperature of the body. Dr. Smith employed this measure in eighty cases. In two or three cases the rectum became so irritable that the injection was immediately voided; in about one-third of the cases more or less constipation occurred; in two cases the discharges were very offensive; in one case nervous irritability and insomnia were produced. Otherwise, the use of the blood was not attended by any ill-effects. About forty of the patients treated by Dr. Smith suffered from pulmonary phthisis. Marked benefit was obtained in about one-half of these cases, although nearly all had been previously treated with cod-liver oil, stimulants, tonics, quinine, etc. Quite a number of cases of simple anæmia were treated with excellent results in all, with the exception of one patient, who was suspected to be suffering from congenital arterial hypoplasia. The treatment was also found to work admirably in atonic dyspepsia, dyspeptic asthma, inveterate neuralgia, nervous exhaustion, etc.—*Archives of Medicine*, Dr. A. H. Smith, April, 1879.

SIX DAYS BURIED IN A MINE.—Seven men were entombed six days in a Wilkesbarre coal-mine last week, and were rescued, alive and well, through a shaft which had to be sunk 1,200 feet for their relief. They subsisted on the flesh of a mule, which "agreed" with all but one, whom it caused to have diarrhœa. They had a good supply of air and water.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, May 10, 1879.


## INSANE ASYLUM REFORMS.

THE appointment of a staff of attending physicians to the Hudson River State Hospital for the Insane, at Poughkeepsie, N. Y., is an innovation in asylum management which promises much good. On general principles we have maintained that the medical staff of our insane asylums is too small for the work that is expected of them. As a rule, the superintendent is the only person of the staff whose reputation and experience entitle him to the position as an expert and medical adviser for the insane. Strange as it may seem, he is the only one who does not see the patients regularly, that duty being left to his assistants, one or two in number, who are supposed to make regular visits daily. The function of the medical superintendent is more that of an architect, civil engineer, business manager, and farmer, than a practised clinician. This is the fault of our asylum organization, which considers hospital construction and everything pertaining thereto of paramount importance in the care and treatment of the insane. In order to meet all the requirements of what is understood as the duties of medical superintendent, the medical care of the patients must be more or less neglected. The cases are treated by wholesale, or left entirely to the assistants—the latter, as a rule, being young and inexperienced, and altogether too few in number to study the cases profitably.

As we understand the new plan as applied to the institution at Poughkeepsie, it is similar to that of general hospitals, with the exception perhaps that the chief executive officer is a medical man. This arrangement would place the organization of the hospital on a similar footing with the United States general hospitals which were in existence during the war, while an independent attending staff will give the institution all the clinical advantages of a metropolitan hospital.

Another benefit which the change will confer upon medical science will be a more thorough clinical study of insanity, by introducing new views, by instituting new methods of treatment, and by distributing the work among many workers, and thus enlarging the field of observation. Not the least of the advantages which may be gained by the new arrangement is the opportunity which may be given to the average medical student of studying insanity in the wards of an asylum, and of listening to clinical lectures upon the same by his professor. Of course, in regard to this point we can only speak in a general way, presuming that the change in the Poughkeepsie asylum may be adopted in institutions nearer home and more accessible to students. The attending staff of the asylum in question is unexceptionably good, made up of representative men, who will, no doubt, take every advantage of the situation, and solve, if possible, one of the most important problems of asylum management.

### MEDICAL REFORM IN GREAT BRITAIN.

THE demand for reform in medical education and kindred matters, although not so urgent as with us, is by no means confined to this country. The centralized and too paternal methods practised in France, which give to the University of Paris a monopoly of medical education, began some time ago to excite much complaint there; and this has lately resulted in giving some meagre privileges to the provinces. In England there are just now several reformatory measures on foot, the adoption of which is being attempted by the profession. It may be remembered that in Great Britain the state has very little to do with the regulation of medicine. It attempts only to furnish an authentic list of qualified practitioners, and to define the minimum of qualification which will entitle a physician to be put upon this general register. These two things it does through the agency of a General Medical Council—a body consisting of twenty-four persons, selected partly by the crown, but chiefly from the large universities and the medical colleges. There are nineteen medical corporations in Great Britain which can license a person to practise. These corporations all compete with each other for students; and their requirements for a degree or license, although there is a prescribed minimum, vary much with the different institutions. So that practically it is a quite notorious fact that, if a student is apprehensive of failure before one examining board, he will slip off to another which gives easier terms. In order to remedy this evil, it is proposed that there be a conjoint board of examiners, made up from the various medical schools, and that this board be empowered to examine and give licenses to those whose qualifications are found to exceed a certain minimum. There are further details which complicate the matter, but into which we need not enter. The project has this advantage, that the minimum qualification cannot be a very

high one, certainly not so high as that already adopted by some of the best schools, although higher than that of the poorer ones. The conjoint board scheme, however is, on the whole, pretty generally approved by the medical press and public.

A second trouble which disturbs the British mind is the composition of the General Medical Council. This now represents chiefly the medical colleges rather than the profession at large, and it is accused of being a corporation organ, a partisan and inefficient body. It is very strongly urged that there be a direct representation of the profession among its members, and the proposal is no more than reasonable. But the Medical Council has recently voted that things are best as they now exist, and the profession at large is not strong enough in Parliament to get a law passed changing the composition of the body in opposition to its influence and vote of self-approval. There is a feeling against it, however, which will undoubtedly result in securing the desired change in course of time.

A third project of reform is one in regard to quacks and impostors. There is now practically no law against such parties, and some legislation is sought by which they may be suppressed. However desirable such a measure might be, it is not likely that any remedy will be obtained during the present session of Parliament, so that the herb-doctors, dynamic physicians, and specialty men are likely to continue flourishing for a time longer. It may be some satisfaction to Illinois to know that it is ahead of England in this respect.

In regard more particularly to medical education, there is frequent complaint that the students are deficient in preliminary qualifications, and that the course of instruction is not long enough. Although there exist regulations requiring a certain amount of general education before matriculation, we imagine that, like similar requirements in this country, they do not amount to much, and the idea of a prospective student being rejected on account of deficiencies in this particular is never seriously entertained. This higher preliminary education is one of the things which is universally agreed to be very desirable, and in this pleasing unanimity the matter rests, while blockheads continue to matriculate and take out tickets at the regular rates. And so it will continue in England, as with us, for a long time to come.

The course of study covers forty-five months, of which thirty must be spent at a medical college, and, during the time, two examinations be passed. The project of extending this course from four years to five, as in Germany, or to six, as in Italy, is one that has been strongly urged, but firmly and successfully opposed; and if the English system were like ours we should be inclined to doubt its advisability. For four years spent in hanging over text-books and sitting through didactic and clinical lectures, things which make up the American students' education, would be quite as much as the average mind could tolerate. The facts thus accumulated would need to be vivified by experience and practical work among the sick and injured. Under the English system, however, such practical applications of theoretical knowledge are being constantly made to a greater or less extent. Every student is obliged to act as ward clerk, assistant dresser, or in some similar position, sufficiently unpretentious but undoubtedly useful in bringing him into direct contact, medically and surgically, with disease. Five years of this kind of study, therefore, might be valuable, as it seems actually to be in Germany. But it would be necessary for us to change our "system" as well as lengthen our course. Indeed, the idea of the American student ever being obliged to devote himself to five years of useful and practical study is beyond the dreams of the most hopeful optimism.

It may be a useful, though a somewhat melancholy task, to contrast the deficiencies, often enough harped upon, among us, with the comparatively trivial ones about which the British medical profession is agitating itself.

The latter asserts that it needs a change in the composition of the General Medical Council, the establishment of conjoint examining boards, legislation against quacks, and a higher preliminary education.

Our deficiencies, as summed up by Dr. Pepper, are: a strict examination preliminary to matriculation; personal training in the practical branches; a regular grading of the curriculum; an examination for candidates for degree by those not pecuniarily interested in the success of the candidates. And we can add that we also need protection against quacks and impostors as well as against those numerous diploma mills and corporate advertising bodies which exist under the name of medical colleges.

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Salicylate of Soda in Gout.—In a letter published in the *Jour. de Méd. et de Chir.*, a physician of forty years' standing gives his personal testimony to the value of salicylate of soda in gout. He had been subject for twenty years to attacks of gout, rheumatism, and sciatica, which came on several times every year, and were sometimes exceedingly violent. His urine was very often loaded with uric acid, and several of the joints of his feet and hands were immovable from gouty concretions. He began the use of salicylate of soda in August, 1877, and has continued it ever since, without a single day's interval. Since then he has had no attack either of the gout, the rheumatism, or the sciatica, and his urine has never presented the brick-dust deposit so often observed previously. His joints also have regained a certain degree of mobility. He takes 15 grains of the salt with each meal, except in the heat of summer, when he reduces the dose to 30 grains per diem. He drinks about a quart of wine a day, but dilutes it with carbonic acid water, to which 30 to 45 grains of bicarbonate of soda are added.

# Reports of Societies.

## NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting April*, 9, 1879.

DR. J. W. HOWE, VICE-PRESIDENT, IN THE CHAIR.

### AMPUTATION OF THIGH FOR KNEE-JOINT DISEASE.

DR. WYETH presented a specimen of disease of the knee-joint removed by amputation of the thigh, from a boy aged ten years. He saw the patient for the first time in 1876, when there was present a severe inflammation of the knee-joint with flexion of the leg. An extension apparatus was applied with the effect of strengthening the limb, and at the end of a few months afterward the patient was able to walk. Unfortunately he received an injury from a fall, when the old trouble in the knee revived and increased until there was disorganization of the joint and its surroundings, with extensive infiltration into the neighboring muscles. All hope of saving the joint having been given up, amputation was decided upon In order to make the section through sound tissue, the amputation was made in the middle third of the thigh. Dr. Wyeth thought that the latter was the better course, inasmuch as the suppuration was very profuse and the child was not in a condition to tolerate much subsequent discharge from the stump. In conclusion, he exhibited the joint, which showed osteitis of the condyles of the femur, erosion of the articular cartilages, and a pulpy condition of the synovial membrane, with fibrinous exudation of the capsule. He wished to know whether or no the disease commenced in the synovial membrane.

### AMPUTATION THROUGH INFLAMED AND INFILTRATED TISSUES.

DR. SHRADY thought that the disease originated in an osteitis. In regard to amputation of the thigh, he believed the rule to save as much of the femur as possible was a good one, even if it were necessary to make the section through soft tissues involved in suppuration. He had performed two weeks previously a supra-condyloid amputation of the thigh for disease of the knee-joint, in which the entire anterior skin-flap was infiltrated with fibrinous exudation and contained numerous sinuses. The flap took on a healthy appearance in a few days, the skin became of a natural color and suppleness, and there was no sloughing at any point.

DR. BRIDDON believed that the disease originated in the articular extremities as an osteitis, the joint becoming secondarily involved by erosion of the cartilages and subsequent pulpy degeneration of the synovial sac. He did not think that there was any danger in using, for flaps, skin that was infiltrated or contained sinuses; in fact, the real risk was in making the section of the thigh high enough to clear them. Every inch of the femur which was sacrificed added to the risk of the patient. In every case where there was a choice between using an unsound flap or making a section of the bone higher up to clear it, he should always be in favor of the former. In fact, in the majority of cases these infiltrated flaps do better than the ordinary ones made through sound integument. In his experience the suppuration from the sinuses very soon disappeared.

DR. POST stated that there was a certain amount of quasi-reparative action in infiltrated flaps which helped to explain the reason why they healed so kindly. In this connection he referred to the practice of Dieffenbach, who prepared flaps for transplantation by undermining them two or three weeks beforehand. Under the circumstances the capillaries of the part became enlarged, and were better prepared to take on reparative action than when merely healthy tissue was used.

DR. HOWE did not think that the cases were parallel ones. In one healthy skin was raised from the cellular connections for eight or ten days, while in the other inflammatory processes over years had infiltrated the skin with purulent matter, produced ulcers, and in every way made it unfit as a covering for a stump.

### OLD PELVIC PERITONITIS; CHRONIC CYSTITIS; URETERITIS AND PYELITIS; PERIURETERITIS; PERINEPHRITIS; CHRONIC INTERSTITIAL NEPHRITIS; PYONEPHROSIS (LEFT); PYÆMIC INFARCTIONS OF LEFT LUNG; CROUPOUS PNEUMONIA (RIGHT); CEREBRAL CONGESTION; MITRAL STENOSIS; FATTY HEART.

THE above is a statement of the numerous pathological lesions found at the autopsy of a German woman, 37 years of age, who died under care of Dr. Beverley Robinson, in the Penitentiary Hospital, B. I., on April 5th, at 11.40 P.M. The previous history of this patient is but little known. Prior to her decease she had been in the hospital twenty-six days, and shortly before the date of admission she had had a convulsion. She was suffering from a vesico-vaginal fistula, which allowed her urine to dribble away from her so soon as it entered the bladder. There was marked pain over the epigastrium, loss of appetite, and constipation. She was anæmic and much emaciated. Her temperature was about normal.

A careful examination of the chest gave negative signs (statement taken from ward-book). The condition of the urine was not examined.

I saw the patient for the first and only time on April 5th, about seven hours before she died. At that time I was informed she had taken little nourishment during the past two days, and even that little she had in great part vomited. Patient had been in a state of hebetude all day, and craving water to drink. The pupil of right eye was contracted, the left pupil was covered by a staphyloma. Pulse 96, very feeble, extremities cold, and general temperature sub-normal. There was no sensation when a pin was imbedded in the skin of the hands. There was moderate subsultus; tongue dry and coated; respirations shallow, but of normal frequency. Upon a rapid and imperfect physical examination but few physical signs were revealed; still it was thought probable that both lungs were in a condition of hypostatic congestion, rendered obscure by the state of collapse, in which the patient was at the time of my visit. The mental hebetude was presumably due to cerebral œdema; cause unknown. The prognosis was of course pronounced imminently grave.

At the post-mortem interesting lesions were found in the lungs and kidneys, which I here offer to your consideration.

The lower lobe of this right lung, you perceive, is completely consolidated by croupous pneumonia, apparently in the gray stage, and from its surface of section a thick, tenacious, puriform liquid can still be scraped. In other portions of the lung there are evidences of emphysema, œdema, and congestion. The bronchi are inflamed. At the origin of the pulmonary artery is seen a large clot extending itself into its branches. This is not to my eye altogether a thrombus. There appears to be a sort of central spot of different and pinkish coloration, about which the

white fibrin has deposited. Taken in connection with the condition observable in the left lung at the autopsy, this has additional significance. Here there were several large hæmorrhagic infarctions, limited, however, to the lower lobe. In different portions of the entire lung are hard nodules, which present on section "a yellowish white granular surface, from which on pressure a puriform fluid can be squeezed" (pyæmic infarctions).

The entire upper half of left kidney has become an abscess, containing yellowish pus mingled with cheesy material. The remaining portion of the cortical and medullary structure present the lesions of chronic interstitial nephritis. The entrance of the left ureter into the bladder is blocked with a small white calculus. Behind this obstruction a narrowed ureter with thickened coats is seen. The pelvis of left kidney is dilated and its lining membrane much thickened. Bladd-r is contracted. The mitral orifice of the heart is markedly stenosed.

To microscopical examination the right lung gave the following results: "large quantity of pus cells in the inflammatory exudation, a few epithelial cells, no fibrin, a very few red blood-corpuscles, and an immense number of bacteria. The chief peculiarity about the lung was the large quantity of mucus."

Inasmuch, also, as upon close examination the consolidation was neither strictly lobar nor yet lobular, it was extremely difficult to classify it among the types of croupous or catarrhal pneumonia.*

ENCHONDROMA OF PAROTID REGION.

DR. A. C. POST exhibited an enchondroma which he had removed by operation from the region occupied by the parotid gland. The tumor was exceedingly hard, was firmly attached, and extended down deeply behind the ramus of the lower jaw. Its relations to large cervical vessels was so close, that it was considered prudent to make the chief incisions behind. After working about an hour the tumor was separated sufficiently from its connections to be seized by a vulsellum and turned upon its axis. In so doing the end of the styloid process was snapped off and removed with the growth. Dr. Post believed, notwithstanding that the tumor occupied the locality of the parotid gland, it was not a growth from that organ. His reasons for such a view were that neither the external carotid artery nor the facial nerve were encountered in the operation of extirpation of the tumor.

THE RELATIONS OF THE EXTERNAL CAROTID TO THE PAROTID.

DR. WYETH remarked that it was the rule that the external carotid artery should perforate the parotid, but that rule was by no means absolute. Morton speaks of the external carotid as making only a groove in the gland, and Dwight says that the artery does not enter the gland from below, but on the inner side, at a point which is variable.

DR. POST stated that he once undertook the removal of a tumor, which he had no idea was one of the parotid. He found, however, on coming down upon its deeper surface, that there was a contraction behind the jaw and then an expansion of the growth. Carrying on the dissection further, the external carotid artery and facial nerve were encountered. The patient lived a year afterward, and died of cancer of the internal parts. Dr. P. also alluded in this connection to another case which was similar in regard to the existence of a tumor of the parotid. When he found the latter to be the case, he concluded not to proceed with the operation. When the patient recovered from the effects of the anæsthetic he was informed that the tumor was not removed, because in so doing the facial nerve would be injured, as well as one of the large arteries of the neck, and that there would be an inability to close the eye of that side, with probable loss of the organ.

PARALYSIS OF FACIAL IN THE REMOVAL OF THE PAROTID GLAND.

DR. BRIDDON stated that within the past six months a tumor of the parotid region was removed at the Presbyterian Hospital. After the removal of the growth, the part that should have been occupied by the parotid was empty, but as neither the external carotid nor the facial nerve were encountered in the dissection, it was concluded that the parotid gland was not involved. Notwithstanding this state of things, the patient suffered from paralysis of the orbicularis palpebrarum, and was consequently unable to close the lid of that side.

DR. SHRADY remarked that the paralysis did not occur until four or five days after the operation, and was probably due to pressure upon the trunk of the nerve, the result of inflammatory processes.

DR. BRIDDON thought that the paralysis did not show itself at first because of œdema of the lids.

BONY ABSCESS IN MIDDLE OF TIBIA.

DR. POST presented a second specimen, which consisted of a disc of the anterior wall of the tibia removed by operation for abscess of that bone. The patient was a boy aged eighteen years. Two years ago he received a contusion of the leg, followed by severe and deep-seated pain. The latter condition existed until two months before the operation, when an inflammatory swelling appeared a little above the middle of the tibia. This swelling went on to suppuration. The abscess was opened, and a probe being passed into it went entirely through the tibia to its posterior wall. Several days afterward the bone was trephined, when a bony cavity, four inches in length in the middle of the tibia, was laid open. The abscess occupied the whole circumference of the medullary cavity and was surrounded by eburnated bony tissue. The interest of the specimen was in the extreme rarity of bony abscess in that locality. A third specimen by Dr. Post consisted of the astragalus and os calcis removed by exsection from a girl aged sixteen years. The patient had suffered for some time with abscess of the ankle-joint, associated with sinuses and rough bone. The principal disease was found to be in the synovial membrane and articular cartilages between the two bones referred to. The disease in the lower portions of the bones of the leg was very slight. The operation was performed by the sub-periosteal method.

TUMORS OF FOREARM.

DR. HOWE presented a tumor of the forearm which he had removed by operation from a patient in the St. Francis Hospital.

The tumor occupied the upper four-fifths of the ulna and involved the periosteum, flexor profundus digitorum, flexor carpi ulnaris, pronator quadratus, ulnar artery and nerve, all of which were removed except their upper and lower attachments. The lower portion of the tumor contained a hard mass resembling bone. The patient was a seamstress, aged 21, of good habits, and without any hereditary disease. The tumor commenced nine years previously at the upper end of the ulna. It gave her no pain, and did not inconvenience her in the least. Three years subsequently a sec-

* This opinion is that of an expert in microscopy.

ond and separate tumor appeared at the wrist-joint. For four weeks the tumor seemed to grow rapidly and give her pain. The fingers were flexed, so that their ends reached the palm of the hand, and she could not extend them. The thumb retained all its power and the index finger was also capable of some considerable movement. The removal of the tumor was performed under Lister.

Dr. Howe stated, in conclusion, that Dr. Shrady, who assisted in the operation, was of the opinion that the tumor was a periosteal sarcoma.

Dr. Briddon did not see anything in the specimen which favored such an opinion.

Dr. Howe was not prepared to say what was the nature of the growth.

Dr. Shrady remarked that the specimen was much altered in its general appearance since its removal. He stated that he had made a careful examination of the case before the operation, and made the diagnosis of a periosteal sarcoma, which involved the ulna, deep flexors of the forearm and the pronator radii quadratus, extending across the latter muscle and being attached to the radius. The operation proved the diagnosis to be correct as far as the attachments of the tumor were concerned. Except the period of its growth, it presented clinically all the features of a sarcoma. The gross character of the growth, and especially the appearance of osteoid tissue in the substance of the tumor, confirmed such an opinion. He regretted that no microscopical examination of the tumor had been made.

Dr. Post referred, in this connection, to a specimen which had been taken from an old case of hip disease, and in which there was a deposit of bone developed in the midst of the neighboring soft parts, and unconnected with any of the bones of the skeleton.

On motion, the specimen of tumor of parotid region presented by Dr. Post, and of tumor of the forearm, presented by Dr. Howe, were referred to the committee on microscopy.

The Society then went into Executive Session.

## NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, April* 17, 1879.

Fordyce Barker, M.D., LL.D., President, in the Chair.

### CATARACT EXTRACTION, WITH A STATEMENT OF TWO HUNDRED AND FIFTY CASES.

Dr. C. R. Agnew read a valuable and interesting paper, and offered for the consideration of the Academy a tabular statement of two hundred and fifty consecutive cases of cataract extraction, with such comments as seemed to him to be the fruit of the experience which they afforded. One hundred and eighteen of the number had already been published, while one hundred and thirty-two had not heretofore been tabulated. He brought the cases altogether in order that a broader basis might be made for such animadversions and deductions as naturally followed from their consideration. Of course we all desired to know what was the best method for the removal of a hard cataract, and what was the prognosis in such operative interference. In considering the question of cataract extraction it was difficult to generalize, unless we did it upon a basis of a very large number of cases. Ever since von Graefe had given us the method of modified linear extraction, the danger of failure to give improved vision in cataract cases had steadily lessened whenever ophthalmic surgery was intelligently practised. He thought it might be safely said that the danger of total loss might be stated as being considerably less than *ten* per cent. In the group of 118 cases already published by him the percentage of failure to restore vision was 9½ per cent. In the group of 132 cases the percentage of failure to restore vision was 8$\frac{11}{33}$ per cent. Combining the results of the two groups there was a percentage of failure to restore vision of 8¾ per cent. Dr. Agnew thought that the more obvious lessons which those cases taught might not be without value as helping to show us what to do or what not to do in our immediate practice. The more experience he had, the more his confidence increased in the comparative value of that method for the removal of hard cataract which was known as *Graefe's modified linear method.* By that he meant the method which consisted essentially in the removal from the eye of the crystalline lens, without its capsule, by making an incision upward in the margin of the cornea, and removing by an iridectomy that opposing portion of the iris which laid in the way of the easy delivery of the lens. In common with most, if not all surgeons, he made a wound, the edge of which extended about a millimetre back from the margin of the clear cornea, while at least three-fifths of its entire extent was distinctly in the clear cornea, but bordering upon its opaque edge. The position of the wound differed decidedly from that which Graefe first selected, and for a most excellent reason that it kept away, throughout the greater portion of its extent, from the limbus of the cornea and the ciliary region, thus lessening the danger of disastrous ciliary irritation and inflammation—the danger which Graefe soon discovered and shunned. The knife he used resembled more nearly that sold as Liebreich's than the one employed by Graefe. It was a very narrow, straight bistoury, which, by its narrowness and thinness, could be easily propelled through the corneal tissue, encountering the minimum of resistance, and being most easily directed in the manœuvre necessary to make a sufficiently large and clean corneal wound. To hold the eyelids open he used Graefe's silver-wire speculum. He usually gave the patient ether to profound anæsthesia, taking all precautions to lessen the danger of vomiting. To steady the eyeball he used the ordinary fixation forceps, applying them as closely as possible to the margin of the cornea exactly opposite the place where he intended to make the corneal wound.

#### THE CORNEAL INCISION.

Considerable art was required to make the cut just where it should be. He usually divided the cornea into four zones by drawing five imaginary lines. One passed through the centre of the pupillary space, with two above and two below. The upper and the lower lines just grazed the clear corneal edge, while the others were exactly intermediate. He commenced his incision usually about a millimetre from the clear edge of the cornea, upon the intermediate line. The instant the point of the knife entered the anterior chamber he directed it downward and forward until it reached the centre of the field of the pupil, going on in the plane of the iris, but avoiding its tissue. He then passed the knife onward, giving to its point a curved direction upward, and made the counter-puncture on the intermediate line at a point as nearly as possible opposite the wound of entrance or puncture. That manœuvre made the dimensions of the wound in the anterior chamber as large as the outer edge of the cut would seem to indicate, and the ends of it sharp and clean, and less likely to ensnare the

cut edges of the iridectomy. As the knife, in making the counter-puncture, emerged beneath the conjunctiva of the limbus, it was well to give it a somewhat quick thrust in order that the aqueous humor might not follow into the subconjunctival space and burrow there before the conjunctiva was pierced. In completing the corneal wound he endeavored to have three-fifths of its extent distinctly in clear cornea, approaching the opaque edge and yet its central portion, one-half a millimetre at least, from it. He thought that a wound made throughout in the opaque cornea or the limbus did not heal so well; moreover, he had seen ugly and even disastrous trouble set up in the ciliary region by carrying the entire wound in the limbus. He was very imperative on the necessity of having the wound large enough for the easy delivery of the lens. An insufficient wound was the worst possible defect in a cataract operation.

### THE IRIDECTOMY.

In the iridectomy the iris should be coaxed out of the anterior chamber by a little gentle pressure with the horn-spoon over the upper ciliary region. It was better that the iris should prolapse than that the iris-forceps should be introduced into the anterior chamber. If, however, the desired prolapse of the iris could not be produced in that manner, the forceps could be introduced. Usually the amount required was removed by three snips of the scissors. The aim should be to leave a clean-cut coloboma without jagged edges or any tags of iris in the corneal wound.

### LACERATION OF THE LENS-CAPSULE.

The next step in the operation was the laceration of the lens-capsule. It had been proposed to deliver the lens capsule and all without laceration, but he had not been so favorably impressed by what he had read and seen as to be induced to try that method. The best that could be said for it was that it did not necessarily always cost a loss of the eye.

With reference to division of the capsule, he thought the practice had commonly been to use the cystotome freely and to break up as much of the anterior capsule as possible without coming in contact with the uveal surface of the iris too freely. He had never been able to convince himself that any considerable portion of the anterior capsule could be invariably cut out by any method of concurring incisions. He had, therefore, always contented himself with such a free division of that portion of the anterior capsule as extended from below the axis of the lens upward to its periphery, and sideways to the edges of the cut iris. Lately, acting upon a suggestion made by Dr. Knapp, he had confined his work with the cystotome more to the mere peripheral portion of the capsule, opening the sac of the lens along its upper and anterior edge, taking care not to lacerate the suspensory ligament or to open the vitreous chamber. That operative procedure was first suggested and done by Dr. Gruening in Morgagnian cataract, and Dr. Agnew thought the method was a most substantial addition to the extraction manœuvres. It might be true that a secondary operation might be very frequently necessary to break a hole in the capsule which would become more or less opaque, but such a procedure was extremely common after the older method of free division of the capsule at the time of the operation.

### PRELIMINARY IRIDECTOMY.

For a year or two he had resorted quite frequently to a preliminary iridectomy, hoping by so doing to lessen the number of total losses after extraction. His experience had led him to believe that it was of value in exceptional cases only, or when we had more than usual reason to dread accidents at the time of the extraction operation, or certain bad after-complications.

At present he was in favor of the preliminary iridectomy: 1. In cases of known or gravely suspected fluidity of vitreous humor; 2. In cases of extreme marasmus, when the nutrition of the eye was very doubtful; 3. In cases in which an anæsthetic could not be used, and in which the patient had *no* self-control, or when from extreme deafness the surgeon was unable to command quick obedience on the part of the patient; 4. In cases of extensive pterygium or chronic conjunctivitis; 5. In some cases of synechia, anterior or posterior; 6. In cases of partial staphyloma.

### MINUTE DETAILS OF THE EXTRACTION OPERATION.

Dr. Agnew then referred to certain minute details which he regarded as of the utmost importance, such as thorough removal of lens-crumbs by manipulating the cornea with partially closed eyelids; moistening the surface of the cornea if there was the slightest suspicion that its epithelial covering was growing dry; aiding the delivery of the lens by a little pressure on the eyeball, over the upper scleral lip of the corneal wound; bringing forward the lens by well-directed pressure with the horn-spoon, so that the nucleus and critical portion could be delivered together. Those difficulties would be at their minimum if the corneal wound was large enough.

### THE USE OF ATROPIA AND ESERINE.

At one time Dr. Agnew thought it best to dilate the pupil with atropia before extracting the lens, but had discontinued the plan. He had not seen any reason for instilling eserine before the extraction, but on the contrary some cogent ones against its use at that stage —among others, that it now and then induced much irritation of the eye and active hyperæmia.

### THE AFTER-TREATMENT.

Dr. Agnew then gave a somewhat detailed account of the after-treatment of the patient, such as related to covering the eye, and the general hygienic and medicinal management of the case. So long as the tarsal edges of the eyelids remained natural in appearance, not being in the slightest degree reddened or swollen, the scleral conjunctiva only moderately injected, the cornea clear, and the anterior chamber neither muddy on the one hand, nor too clear and too deep on the other, and the iris changed but little from the color of that in the fellow-eye, and the reflex from the pupillary field was either clear and black or only a little milk-and-water looking from the presence of a few thin crumbs of cortical lens matter, we might remain at ease. Usually, little after-treatment was required of a surgical kind, however, and we simply had to meet inflammation in some one of its acute or subacute forms. He felt, however, that after having done a good clean extraction through a sufficiently large corneal wound, we might, as a rule, content ourselves by vigilant inactivity.

### METHOD OF APPLYING COLD TO THE EYES.

His method of applying cold to the eyes was by means of pieces of muslin that had laid for some time upon a block of ice.

When atropia caused irritation, duboisia should be substituted for it.

STATEMENT OF RESULTS IN THE GROUP OF 132 CASES.

By Graefe's method there were 80 successes, 11 partial successes, and 8 failures.

By Graefe's method, with preliminary iridectomy, there were 22 successes, 2 partial successes.

By Liebreich's method there were 6 successes and 2 failures.

By Le Brun's method there was 1 failure.

The successes were, 81$\frac{37}{44}$ per cent.; partial successes, 9$\frac{11}{44}$ per cent.; and the failures, 8$\frac{1}{11}$ per cent.

STATEMENT OF RESULTS OF THE WHOLE 250 CASES.

By Graefe's method there were 146 successes, 20 partial successes, 15 failures, and 3 unknown.

By Liebreich's method there were 21 successes, 2 partial successes, and 6 failures.

By Graefe's method, with preliminary iridectomy, there were 22 successes and 2 partial successes.

By Le Brun's method there were 4 successes, 2 partial successes, and 1 failure.

By the flap operation there were 6 successes.

The successes were 79$\frac{3}{5}$ per cent.; partial successes, 10$\frac{3}{5}$ per cent.; failures, 8$\frac{1}{5}$ per cent.; and unknown, 1$\frac{1}{5}$ per cent.

Further analysis was read, after which Dr. Agnew gave a detailed report of two cases of unusual interest, and which illustrated the value of certain steps in the operation. Special reference was made to beneficial results following the administration of large doses of calomel [fifteen to twenty grains], when there was reason to believe that the vicinage of the blood-vessels was occupied by lymph-cells.

The paper being before the Academy for discussion,

Dr. H. Knapp remarked that on nearly every point he agreed with the author of the paper. The corneal section was the same he had practised for a long time. He thought Dr. Agnew was a little too severe in his criticism on the operation of

REMOVAL OF THE LENS IN ITS CAPSULE.

Besides some disadvantages, the operation had one remarkable advantage—and that was, that it did not produce iritis. There might be loss of vitreous, opacities in the vitreous, and perhaps also the results might not be so lasting; but there were quite a number of perfect results obtained from that method in hands which were practised in its performance.

INFLAMMATORY REACTIONS.

With regard to inflammatory reactions following cataract extraction, he fully agreed with Dr. Agnew, that the greatest liability to them came from *too small* a corneal section. When that section was sufficiently large, almost all the other steps in the operation were easy. The section of the iris should be thorough, and care should be taken that it did not become wedged into the edges of the wound. So long as the sphincter edges were not cleanly in the anterior chamber there was danger.

EXCISION OF A QUADRANGULAR PIECE OF THE LENS-CAPSULE.

Dr. Knapp referred to the various methods of opening the lens capsule with the view to avoid inflammatory reaction, and remarked that for about ten years he had practised excision of a quadrangular portion of the capsule, but even then reaction processes had been distinct. He thought it best to open the capsule as little as possible. He then gave the results obtained in 461 cases of cataract extraction which he had performed in Heidelberg, and in 360 cases in which he had performed the operation in the city of New York. Among the 461 cases there were 33 failures, and among the 360 cases there were 36 failures. The capsule was opened at the periphery in 67 cases, and of these there were 4 failures. Of the whole the failures amounted to only eight and nine per cent.

Dr. Roosa remarked that while the statement was perhaps entirely correct, in one aspect, that there had been a steady increase in success since the introduction of von Graefe's modified operation, he doubted if the statistics of large eye infirmaries, where there were a number of operators, had shown that any extraction operation had been made so easy that the results were much better than those obtained from the old flap operation, and without iridectomy. He had always thought, notwithstanding his profound regard for von Graefe, that too much credit had been given to him for this operation. He thought Graefe's operation as simply and practically a change of the old inconvenient knife to one which was convenient, with a little different manner of making the incision. He believed that the millennium of cataract extraction would not be seen until the day arrived when the lens could be removed entirely with its capsule. Until that could be performed successfully, and performed without iridectomy, the highest degree of success would not be obtained. Just how that was to be done he was hardly able to suggest. The operation of iridectomy marred the beauty of the eye, and it was with pride that he referred to the cases in which Dr. Agnew, years ago, operated by the old method, and the patients came from the operation with a circular pupil and vision undisturbed.

PERIPHERAL SECTION OF THE LENS-CAPSULE.

Dr. Gruening remarked that he was the first to introduce the peripheral section of the capsule of the lens. It was never performed or suggested by von Graefe, even at the time when scooping out the lens was recommended. Dr. Gruening then gave an account of the step which led him to the adoption of that modification, particularly for the extraction of a Morgagnian cataract.

Dr. Thomas R. Pooley thought it desirable that a better word than that now employed for peripheral laceration of the capsule should be found. With reference to the cases in which Dr. Knapp had made the operation by this new method, he had assisted in the performance of very many of them, and had been surprised at the very few in which there was subsequent reaction of any kind whatsoever. In the cases in which the quadrangular laceration was made, certain forms of reaction occurred quite frequently, but there was a striking absence of iritis. With reference to the preliminary iridectomy, he directed Dr. Agnew's attention to a remark he had formerly made to him, that one of its advantages was, that about the region of the cicatrix was set up a hyperæmia which was favorable to the healing of the cataract section that was to follow.

Dr. Holcombe agreed with Dr. Roosa regarding removal of the lens without removing a portion of the iris, and asked Dr. Agnew with reference to the proportion of his cases in which vomiting followed extraction of the lens, and its explanation.

PREPARATORY TREATMENT.

Dr. D. Webster remarked that he had assisted Dr. Agnew in most of the last series of extractions, and their experience had shown that, as a general rule, it

was better not to delay an operation for the purpose of placing the patient upon a course of preparatory treatment.

Drs. Hutchinson of Utica, and Matthewson of Brooklyn, were invited to participate in the discussion, but, owing to the lateness of the hour, declined to make any remarks.

Dr. Agnew, in closing the discussion, remarked that all agreed with regard to the apparent mutilation of the eye by the removal of a portion of the iris, but he believed that reliable statistics showed better results than were obtained by the old flap operation. He thought the statistics made before Graefe's time were not so reliable as those which had since been accumulated. The percentage of total loss was from three to four per cent. less since von Graefe suggested his improved method than formerly.

With regard to Dr. Pooley's question, he had not lost his confidence in the procedure.

The Academy then adjourned.

## SURGICAL SECTION.

*Stated Meeting, April* 8, 1879.

Dr. Stephen Smith, Chairman.

### PARALYSIS FOLLOWING FRACTURE OF CORACOID PROCESS OF SCAPULA.

Dr. James L. Little reported a case of fracture of the coracoid process of the scapula from very slight injury, which was followed by complete paralysis of that side of the body.

### TRAUMATIC RUPTURE OF ULNAR NERVE—PROPOSED OPERATION.

Dr. L. Weber reported a case of rupture of the ulnar nerve. He had proposed to operate by cutting down and tying the ends of the nerve together.

Dr. A. C. Post regarded the proposed operation as a feasible one, and one which he should not hesitate to perform.

### DYSENTERY—STRICTURE OF INTESTINE—LUMBO-COLOTOMY.

Dr. Post reported a case of ulceration and stricture of the rectum resulting from severe dysentery, in which he had performed the operation of lumbo-colotomy with favorable results.

### ABSCESS TREATED BY HYPERDISTENTION.

Dr. Post also reported several cases of abscess which had been treated by Callender's method, or by hyperdistention, with good results. In one case the patient passed into a condition which Dr. Post regarded as due to carbolic-acid poisoning. An account of the case has appeared elsewhere [see Record, April 19, 1879, p. 378].

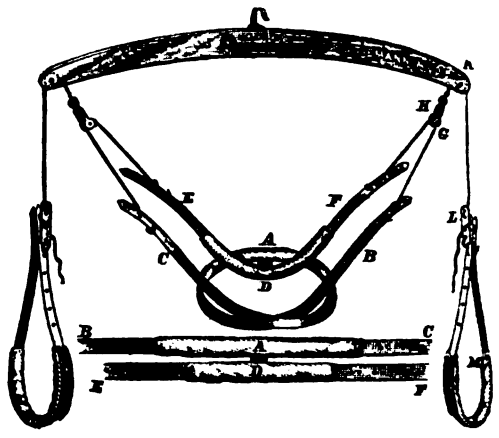
### NEW INSTRUMENTS.

Mr. Stohlmann exhibited a large number of new instruments, and among them was

### AN IMPROVED SUSPENSION APPARATUS,

devised by Dr. W. C. W. Glazier, which is illustrated in the adjoining woodcut, and bears the following description:

It consists, like Dr. Sayre's apparatus, of a cross-bar, a head-piece, a sling for each arm. The latter, attached by a buckle (L), are connected with the head-piece by a cord which passes over a pulley (K) in each end of the cross-bar, so that the weight is equalized. One end of this cord is attached to a pulley (H), through which passes a second cord (G) that is attached by hooks to the head-piece, so as to allow a backward and forward motion of the head, thus equalizing the pressure between the chin and occiput, or enabling the patient to rest the whole weight coming on the head-piece, on the chin, or the occiput at pleasure.




The head-piece consists of two padded straps (A B C, D E F, lower figure), of unequal length, fastened together at A D by a thin piece of metal bent at right angles, very like the ordinary four-tailed bandage used in fracture of the lower jaw. It is applied in a like manner, with the exception that the ends, instead of being tied, are attached to the hooks on the cord (G), which passes through the pulley (H), the longer one crossing behind the occiput, after passing outside of the shorter one, over the angle of the jaw and mastoid process.

The suspension apparatus is applied in the following manner:

Holding the apparatus before you, attach the short strap (E D F) of the head-piece to the hooks on the end of the short cord farthest from you. Stand behind the patient, slip the arms into the arm-slings (M M), and attach the cross-bar to the elevating apparatus by the hook; pass the head-piece in front of the patient's face, resting his chin on the short strap at D. The middle of the long strap (A) is now in *front* of the chin, the two ends of which (C B) are brought behind the occiput, crossed, and attached to the hooks at the other end of the short cord.

Small patients, in struggling from fright, are very apt to allow the arm-slings to slip to the bend of the elbow. This does no harm, as they invariably flex the forearm, thus holding on in spite of themselves. It is possible that this may be the best position for the arm-slings, as the pressure in the axillæ is often very disagreeable. The cross-bar of this apparatus is 0.50 m. between the bearings of the pulleys, and is the right length for a child; for an adult it should be from 0.75 m. to 0.80 m. in length. The advantage of length is that the strap (E D F) thus becomes more nearly horizontal, thus preventing pressure on the sides of the face, by holding away the strap (B A C), which would otherwise press too heavily on the jaw.

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Metropolitan Throat Hospital.—This institution has removed to 314 East Forty-fifth Street. The building, which is large and commodious (the gift of a well-known citizen), has been altered and thoroughly adapted to its present purposes.

## CHICAGO MEDICAL SOCIETY.

*Regular Meeting, April* 21, 1879.

(Reported for THE RECORD.)

### THE TREATMENT OF HEMORRHOIDS BY INJECTION.

PROF. EDMUND ANDREWS, President of the Society, read a paper on this subject.

He had corresponded with a large number of itinerant doctors—many of them the veriest quacks—who had practised this method of treating hemorrhoids, with many scientific surgeons who had used the method, and had asked through notices in medical journals for information on the subject, in response to which he had received many letters, some of them containing valuable information. By these means he had gathered statistics of over 3,000 cases treated by injection. He had no doubt that within nine years 10,000 cases had been so treated in this country.

The process seemed to have been the invention of a travelling charlatan of Illinois, in 1871. Afterward a large number of itinerants appeared; some of them had been regular physicians, who left their homes and practice, with the hope of making their fortunes by this new discovery; but most of them were quite ignorant of the science of medicine. The secret was sold to any who would buy, sometimes for large sums.

The substances generally used had been carbolic acid and olive-oil. Later, glycerine had taken the place of olive-oil. Some used the pure acid; others one part of the acid to 20 or 30 parts of the excipient. Ergot had been added by a few. Two used creasote, and two persulphate of iron.

The amount of fluid injected at one time had varied from 3 to 30 drops.

He had accounts of 3,295 cases treated by injection. Nine were said to have died from the effects of the treatment, but five of these were so imperfectly reported that he was not certain they could justly be charged to it; the other four were authentic. Five cases of dangerous hemorrhage occurred, 5 of hemorrhage less dangerous; 10 cases of abscess; 23 cases of sloughing (generally of not much more than the pile itself); 8 cases of suspected embolism of the liver; 1 case of abscess of the liver; 2 of severe inflammation; 2 of stricture of the rectum occurred; while 77 patients had violent pains lasting sometimes for several days; 6 were dangerously sick in bed from two to six months, and one had permanent impotence. One injection caused severe carbolic-acid poisoning.

Of the nine deaths, one was from a large abscess, fever and pyæmia—death occurring on the fifth day (the patient having previously been healthy); another was from apparent embolism of the liver—the liver was torpid, constipation existed, jaundice occurred, glands in the groins and axilla enlarged, and death from asthenia ensued nearly three months after the operation.

One patient was 84 years old, and the injection appears to have been made into the prostate gland. Death resulted in three days. Another case in a younger patient had a similar history and death.

The plan had been pursued by some of tearing open the hemorrhoidal veins with needles. In one case so treated severe suffering came on, and the family adviser being sent for, he found the opening made by the needles stopped with a small cork, which, being removed, the pain ceased.

The operation by injection was not painless in more than about one-quarter of the cases.

Of 3,000 cases, one in sixteen was known to have suffered some disaster, varying in severity from severe pain to death.

Large injections were more likely to produce embolism, abscess, and sloughing, but there was no proof of embolism of any other organ than the liver having occurred.

Strong injections of concentrated substances were liable to the same dangers, except as to embolism.

Pain depended on the locality of the injection; most pain was produced when the medicine was introduced near the verge of the anus. He had found the fear of embolism to be the chief objection practitioners had to trying the operation.

He thought the operation a proper one for certain cases. His conclusions were as follows:

1. The material to use is carbolic acid in oil or glycerine—1 part to 10, 20, or 30. If glycerine is used, morphine, chloral, or iodoform may be added as an anodyne. The dose for each injection should be 2 to 4 drops, and the interval between repetitions 4 to 10 days.

2. The surface of the pile should be protected by an application of some oil, as vaseline, before the injection is made, so that any leakage of the material may not cauterize the surface. The injection should be made very slowly; a very sharp needle should be used. The latter should not be withdrawn for some minutes after the fluid is forced in, lest leakage should take place.

3. Use this treatment for internal piles only, and inject only one pile at a time. Keep the patient in bed eight to ten hours after the operation, to avoid hemorrhage.

4. The rectum may be firmly tamponed above the hemorrhoids before the injection, to prevent the possibility of hepatic embolism, the tampon being allowed to remain twenty-four hours; but this measure is hardly necessary when small and weak injections are cautiously introduced.

Finally, he said the operation was not as safe or eligible as that by the ligature, but with caution was as good as any other method except the latter.

# Correspondence.

## A REPLY TO "NONNE."

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In your issue of May 3d there appears a communication signed by "*Nonne*," who, by insinuation, makes grave charges against me. For those who know my views and actions upon the principles involved in the letter, it will appear in a proper light; but for those numerous members of the profession who read the RECORD, and who are not personally acquainted with me, I must pronounce those implied charges absolutely false and slanderous.

In conclusion, I call upon "*Nonne*" to abandon the protection of his alias, and to publish his name.

Yours truly, E. C. SEGUIN.

NEW YORK, May 6, 1879.

## REPORT OF FOUR BAD CASES OF PYOTHORAX

CURED BY FREE INCISION AND THE USE OF DRAINAGE-TUBES.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—During the last year there has occurred in the practice of my father, Dr. John Burke, and myself, some cases of pyothorax, of which the four last were successfully treated by the above method. The cases are as follows:

CASE I.—Mary Q., æt. 18. After being in the coun-

try but a short time was taken with scarlet fever. In this disease she was attended by Dr. Burke; I seeing her but once. During her convalescence from scarlet fever she again fell sick, this time with pleurisy of the left side. In spite of all efforts, the fluid that distended her left pleural sac would not be absorbed. She was aspirated. It filled again. Aspiration was again resorted to, and this time the fluid contained pus. Patient's condition very low. Pulse 130. Respiration a short time after second aspiration unusually rapid. Temperature 103½° F. I now saw the case with my father. A free incision was contemplated, but we aspirated again. This time a thin pus was contained in the pleural cavity. This relieved her for a few days. We felt she was rapidly sinking. We resolved to make a very large incision. It was accordingly done. A quantity of sloughy tissue came away. A drainage tube was inserted, and the cavity washed out with a solution of carbolic acid. Patient's temperature fell from 104° F. to 100° F. Appetite better. Pulse from 120 to 130 fell to 100 to 105.

For about two months the girl's condition improved. The cavity was washed out, in the beginning, twice daily with a fountain-syringe, and as the quantity of pus diminished, once daily sufficed for washing. During this period I injected the cavity with tr. iodinii, liq. iod. co. and strong solution of carbolic acid, but in vain; I never could sensibly diminish the amount of purulent discharge. Finally, without my efforts, discharge ceased for a week. I withdrew my tube. But unfortunately the cavity filled again. Again was it opened, and finally after two more months our patient was sent home to Ireland with the tube in place. Here she improved rapidly; discharge ceased, and the tube was withdrawn. Eight months after, patient was in good health and working on a farm.

Case II.—I. M., æt. 32, who was a hard drinker, contracted pleurisy of right side. The usual treatment employed. After a time, fluid failing to be absorbed, in spite of tonics, diuretics, and blistering, it was withdrawn with an aspirator. This was repeated three times, when Dr. Burke perceiving the patient's condition to be desperate, made a free incision and inserted drainage-tube. Temperature fell immediately, and appetite slowly returned. The cure was effected after the usual manner in four months. The only remarkable thing in connection with this case was the slipping of the drainage-tube into the cavity of the pleura, where it remained for three weeks, when one morning, after a prolonged fit of coughing, it was expelled, with a larger tube which had been inserted in its place.

Case III. was that of a child two years of age. Pleurisy of left side. It was aspirated three times, when, pus occurring in the fluid, a free incision was made. The little patient, who before was almost in articulo mortis, became much better. A cure was effected after six months.

Case IV. was also a child, aged eight years, whose condition became suddenly alarming, due probably to a change in contents of pleural cavity. Temperature before operation was 105° F.; pulse 165. Respirations extremely rapid. The aspirating needle was inserted on the left side, below the lower angle of scapula, but, as a thin pus exuded around the needle, it was decided by my father and myself to make a free incision. About a quart of pus and sloughy tissue was discharged. The minutiæ of this case are unimportant. The child rapidly recovered, and is now going about, two months from operation, with tube in place. A little oakum bandaged over the mouth of tube preserves his clothes from being soiled. In conclusion, I must say that I believe many patients are lost through hesitancy in opening into pleura when the indications point to a purulent fluid. The operation, even in desperate cases, is not very hazardous to life; though I may state that, called in consultation to do this operation some time ago upon a child, it perished some short time after from shock. I must excuse myself in this case, as I feel convinced that an earlier resort to the free incision would have saved the child's life. Under the circumstances, however, I would again resort to the operation. I think that, previous to Mr. Lister's improvement in surgical dressings, most surgeons would have hesitated about putting a large drainage-tube into the pleural cavity. I think in some extreme cases the old plan was to introduce either a plug of oakum or sheet lint. The consequence was, that the pus did not escape freely, and the success of the operation was not as it is now. If I could, in these cases, have conveniently employed Lister's method, I think I might have shortened the period of convalescence.

Martin Burke, M.D.
147 Lexington Ave.

## VENTILATION OF HOSPITALS.

To the Editor of The Medical Record.

Dear Sir:—I was recently called professionally to attend the veteran ventilating engineer, Prof. J. Wilkinson, of Baltimore, Md., who has spent the past three years in the Northwest in supplying, for a variety of purposes, the system known as sub-earth ventilation, which has of late been introduced in Prussia and other countries of Europe. The system has been in use in this and adjoining States more than two years, and is said to have proved *par excellence*. I have frequently heard of the remarkable results attained by its use, but had not familiarized myself with the detail of construction necessary, or the scientific principles involved in the system, until I formed the acquaintance of Prof. W., the inventor of it.

It has been mainly used, hitherto, in structures for the manufacture of dairy products, for which it has proved to be admirably adapted.

Confidently believing, as I do, that the system is superior to any other for hospital buildings, I wish to present it to the attention of the medical profession, for which I desire to avail myself of the columns of the Record, believing that to be the most useful and efficient medium of laying it before the largest number of the most intelligent medical practitioners.

I will describe the appliances used, and the results attained, which latter, I think it will be conceded, are just what constitute essential characteristics of all structures for human occupancy, and more especially of those that are to be the houses of the sick and demented.

Buildings are supplied with air by means of a subterranean air-duct placed in a stratum of earth in which the temperature is uniform perpetually. Both entrances of the duct are open: one to receive atmospheric air from the most salubrious point available, through a well or shaft with the bottom of which the duct connects; the other to discharge and distribute said air to all the apartments to be tempered and ventilated.

The supply of air is regulated by adjustable valves, and any required volume of it may be supplied to a building at the same temperature as that of the earth in which the duct is placed.

This uniform temperature in the air supplied is unaffected by the extremes of temperature in the external air, and is perpetually about 50° F.

The walls of the duct being of a lower temperature than that of the outer air in warm weather, when air is liable to contain an excess of humidity, it is condensed on the walls, and is absorbed by the clay bottom with which the ducts are constructed, and the air is delivered to the building in an anhydrated condition.

In case it is desirable to retain any of the humidity with which air is charged, this is secured by the use of a plurality of ingress shafts properly distributed along the line of the supply-duct, by the adjustment of valves in which air properly tempered and with variable degrees of humidity may be obtained. Additional devices for deodorizing and disinfecting to a still greater degree than that secured by the clay surfaced bottom of the duct have recently been invented and tested by Prof. W., and found to possess superlative potency, and their hygenic value is believed to be so great that an application for a patent for them will soon be made.

The walls of the duct being moistened by the condensation of vapor on them, they effectually arrest all dust, pollen, and motes floating in air, transmitted by the duct as it is now used. The duct has invariably proved to possess the power of removing ozone from the air.

Dairy scientists contend that ozone annually occasions a loss to the dairymen of the United States and Canada of hundreds of thousands of dollars. The effect of it on milk set for butter-making is, I am reliably informed, so disastrous that it has the effect, every summer, and several times during the same season, to reduce the amount of cream obtained from a given quantity of milk from 35 to 60 per cent. I believe that a substance in air, capable of precipitating acidification and the action of ferments to such a degree as does ozone, must materially augment the insalubrity of said air, and that means for its removal from air will add an invaluable factor in methods for securing the greatest degree of salubrity in the atmosphere of human habitations.

This system of ventilation is in use in central Mississippi, and is said to be very satisfactory.

It has occurred to me that it might prove well adapted to ventilating quarantine and yellow fever hospitals, for which I hope it will be tested ere that unwelcome visitor again appears in its favorite localities.

C. M. JOHNSON, M.D.

HARVARD, ILL.

## SEDATIVE ACTION OF CALOMEL.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The Committee of Antipyretics of the Therapeutical Society having under inquiry the sedative action of calomel, the following six cases have been submitted as illustrative of such action. Contributions of a like character from other members of the society will make all that relates to the question interesting, and tend to draw upon the private case-books of the profession at large for facts that belong to either side, affirmative or negative.

The sedative action of calomel is not so much a debatable point as the claim that is made that calomel, in certain doses, is potential as a cardiac sedative, *without being at all a depressant*. Tartar emetic is powerfully and promptly sedative, but it is, at the same time, dangerously, or, at least, distressingly depressing to the vital powers. If calomel is ever depressing, it is so when any drug having a sedative action would, in the nature of things then existing, be also depressing if exhibited instead of calomel.

The few cases here presented serve to show the actively sedative effect of calomel, wherein depression was not only a sequel of its action, but immunity from that condition was necessary for the safety of the patients.

These few cases, dating back to 1874, are selected because they are the very first, in my observation and practice, in which calomel had been called into requisition for other than its local action upon the liver and intestines, or its general alterative or supposed blood-depurating action if exhibited in minute doses long continued. I am conscious how unmethodically these cases were studied, which would not have been the fact had I realized at the time how novel, useful and bold was the method of treatment, and how much I should afterward prize my experience. To Dr. James R. Leaming is due my initiation into the practice which utilizes a previously unconsidered property of calomel, when given at certain times in certain doses.

I find the new lesson of value in a great variety of cases wherein the leading condition, in the early stage, is great vascular excitement, as shown by turbulent heart-action, excessive arterial tension, and bounding force of circulation, even before pyrexia is established.

To those who recall what I have published in the journals on scarlet fever, diphtheria, etc., it will be seen that mere observation through later years has not impaired my trust in the sedative action of calomel. The cases are as follows:

I. *Endopericarditis.*

II. and III. *Spasm* and threatened mania.

IV. *Irritative* (or nervous) *fever.*

V. and VI. *Gastric fever.*

CASE I.—The little daughter of Mr. M., of Forty-seventh street, about eight years old, was attacked in May, 1874, with acute inflammatory rheumatism, attended by violent cardiac symptoms. The case was in the practice of Dr. Leaming, but for convenience I was delegated by the doctor to attend, while he made occasional visits for observation and counsel.

During the 27th, 28th, and 29th of May the suffering was excessive whenever any suspension of the anodyne ("Dover's powder") was allowed. Notwithstanding the very liberal use of alkaline medicines and the opiates, the heart's action, on the 29th, increased to such a tumultuous state, the pulse became so bounding, and the temperature was rising so rapidly—to say nothing of the pain, which was only partially allayed—that an immediate consultation was called. Dr. Leaming requested me to write for grs. xv. of calomel, which, as soon as procured, was given, with a few grains of sugar, dry, upon the tongue. In less than one hour the whole aspect of the case changed.

Patient ceased to be fretful and restless. The heart, though revealing by the peculiar *bruit* its endocardial and pericardial inflammation, was, however, quieted almost to the normal state. The pulse was tranquil, the skin moist, and temperature cooling. Hours of refreshing sleep ensued, and after that the treatment which had been interrupted was resumed, with no further important hinderance during the progress of the case. The action upon the bowels was so slight that it was never known when a calomel stool had occurred, and there was no ptyalism. This case was in some respects a revelation to me.

CASES II. and III.—In the autumn of 1874 a young man, æt. 20, had disgraced himself by some act of deception, and thereby forfeited his situation in business. The remorse and mortification were so great that he became melancholy and neglected himself.

After a few days he developed symptoms that threatened to be maniacal. This state terminated suddenly in convulsive spasms, which were repeated at various irregular intervals, as often as twenty or or thirty times a day for three days before I was called to see the patient. I found great perturbation of the heart's action and a violence of arterial pulsation that indicated the need of a quick and efficient sedative.

I had in mind Case No. I. so promptly relieved under conditions of vascular energy not very dissimilar.

I administered at once hyd. chlorid. nitrate grs. xx., dry upon the tongue, and had the satisfaction of seeing an immediate suppression of all spasmodic symptoms, a quieted heart and pulse, a tranquillized mind, and a disposition to sleep. During the three days of violent recurring spasms I ascertained that it took two or three men to keep the patient in bed, and to restrain his frenzy sufficiently to prevent his doing himself an injury, and each fit would last from ten minutes to an hour.

CASE III. was nearly the counterpart of the one just described. It was a young woman taken with hystero-epileptiform convulsions, due to disappointment and constipation. She had fifty or sixty convulsions in twenty-four hours—some of brief duration, others nearly half an hour, and one or two an hour long. Between the paroxysms the mind wandered and insanely quarrelsome tendencies developed, everything giving offence, and anger was excited over imaginary opposition. Without any apparent tendency in the case toward cessation of the convulsive spasms, and while the cardiac and vascular excitement was raging up to the highest point of endurance, I was enabled, by one xv. grain dose of calomel, to instantly allay every morbid symptom and put the the patient to sleep, which lasted, with comfort and refreshment, for five or six hours.

There was no impression upon the bowels that might not have been due to any mild cathartic, as only one medicinal stool occurred about eight hours after the dose was taken, and that without pain or sense of exhaustion.

CASE IV.—A boy, twelve years old, jumped out of a wagon without sufficient deliberation, as he was detected by the driver stealing a ride, and was frightened by some threat. He sprained his ankle so badly that he had to be carried to his home near by. The day after the accident I was called in. He had been allowed to go unattended by any physician since he was hurt until I saw him, and, consequently, was suffering great local inflammation and very high fever. I sought to reduce the temperature and the force of the circulation by cooling drinks, febrifuge medicines, and soothing local applications. I partially succeeded, but found in a few hours these symptoms returning, with a tendency to delirium. I gave a powder of calomel and dry sugar upon the tongue, not less than fifteen grains (as I had it with me, and measured it out myself), and in less than an hour the heart was beating with normal rhythm and force, the delirium was no longer threatened, skin moist and cool, and patient disposed to sleep. No unusual peristaltic action occurred from the calomel.

CASES V. AND VI.—These two cases were associated, occurring in sisters, aged respectively seven and nine years. They had made for their amusement some form of infusion that they called "tea," and, having consumed it, were very soon vomiting and retching with great violence and persistency. A neighboring physician gave lime-water and milk, and bismuth subnit., and finally succeeded in allaying the vomiting; but both children were found by me on the following morning to be in a state of nervous irritability and towering fever. The hypogastrium was tender and painful upon pressure, with a tendency to a renewal of the vomiting whenever anything was given by the mouth. I thought of my sedative dose of calomel, and, having given each child xii. grains dry upon the tongue, soon had the pleasure to see the flush of febrile excitement pass off, the pulse fall to the normal frequency and fulness, the skin to react in the physiological direction, the stomach to lose its irritability, and the repose of sleep to ensue. No relaxation of the bowels occurred in either case.

These results, as a matter of course, were so unexpectedly good, and apparently so free from any harm, that they became suggestive of a wide range of possibilities in conditions that require prompt sedation without depression.

GEO. BAYLES, M.D.

37 W. 48TH STREET, April 11, 1879.

## HYDRIODIC ACID.

### A SUBSTITUTE FOR IODIDE OF POTASSIUM.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Seven years ago, while with my father, at that time practising in Chester, S. C., I found that he was using hydriodic acid in place of iodide of potassium. The case that suggested its use was one of asthma; for many years the patient had suffered from this troublesome affection. Whenever she contracted an ordinary cold it would extend to the chest and cause at once persistent asthma, which, if left to itself, would last for weeks. A full dose of morphia would relieve the spasmodic and labored respiration, and large doses of iodide of potassium would remove the bronchitis in a short time. Often the iodide would irritate the stomach and seriously interfere with digestion. To get the best effects it was necessary to give from fifteen to twenty-five grains of the iodide three times a day. Hydriodic acid was prepared by mixing one drachm of iodide of potassium with ninety grains of tartaric acid, and dissolving in four ounces of water. On trial it was found that one teaspoonful of this mixture had as much influence on the bronchial surfaces as twenty grains of iodide of potassium, and produced no bad effect whatever on the stomach. The only difficulty was, that the simple solution soon decomposed and set free the iodine; to obviate this it was mixed with a very heavy syrup, and when properly prepared it made a clear solution which could be kept several days without showing much sign of decomposition.

Gaseous hydriodic acid (HI) is rapidly and perfectly absorbed by water, but being held by a feeble chemical affinity the hydrogen soon becomes disengaged and sets free a corresponding amount of iodine, which, being soluble in hydriodic acid, passes into solution, colors it red, and renders it too irritating for internal use. As 100 parts of hydriodic acid consist of $99\frac{87}{100}$ parts of iodine and $\frac{13}{100}$ parts of hydrogen, it will be seen that it is nearly all iodine, and when not decomposed it is entirely non-irritant and pleasantly acid to the taste. To make the syrup it requires care, and most drug shops will get up sufficient decomposition in the mixing to render the solution useless. Several months ago I sent for R. W. Gardner, of 170 William Street, New York, whose syrups of the hypophosphates I had used with much satisfaction, and suggested that he would try and prepare a syrup of hydriodic acid. He succeeded in making a syrup containing forty minims of the dilute acid to the ounce,

representing $6\frac{66}{100}$ grains of iodine. which corresponds to $8\frac{88}{100}$ grains of potass. iodi., which keeps perfectly. Two teaspoonfuls of the syrup is an average dose.

I have had some patients that could not take even very small doses of iodide of potassium, or iodine in any form, without producing severe iodism. Some of these cases gave distinct accounts of active poisoning, others seem to have the idiosyncrasy show itself with the first dose of iodine. Other patients easily bear 25 grs. potass. iod. three times a day, for weeks at a time. In the use of hydriodic acid I have seldom found it necessary to increase the usual dose to get the desired effect. It would seem that iodide of potassium becomes active by being converted into hydriodic acid.

For the past six years I have had uniformly good results in the use of hydriodic acid in bronchitis, and in chronic or subacute cartarrhal diseases. I have found that it acts as an irritant, and does more harm than good during acute febrile stages. I have also used it in chronic malarial poisoning, and in Graves's disease, and would recommend its use in place of iodine in goitre and adipose tumors. In a case of the latter it relieved the dull pain about the tumor and reduced the weight of the body slightly (the patient being very fleshy). I have not used hydriodic acid in syphilis long enough to give an opinion as to its value in this disease.

The text-books on therapeutics do not even mention hydriodic acid, and the *National Dispensatory*, edited by Alfred Stillé, M.D., and John M. Maisch, Ph.D., says: "Pharmaceutically, hydriodic acid is a very unsatisfactory preparation." "It possesses no medicinal value."

W. GILL WYLIE, M.D.

1 W. FORTIETH STREET, NEW YORK, March 26, 1879.

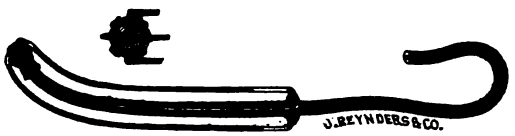
# New Instruments.

## THE METRO-CLYST, OR INTRA-UTERINE IRRIGATOR.

By JOHN S. COLEMAN, M.D.,

AUGUSTA, GA.

THE interesting communication in THE MEDICAL RECORD for March 8, 1879, on "The Treatment of Hemorrhage in Abortion," by Dr. W. T. Lusk, recalls a device mentally evolved by me some months since.




The instrument consists of a wire frame and rubber bing, and has recently been made for me by Messrs. ohn Reynders & Co., of New York. For its name, I n indebted to my erudite friend, Dr. A. Sibley ampbell.

Though this instrument was originally devised solely r the use of tinc. of iodine in the treatment of morrhage in abortion, I confidently present it to the ofession as an invaluable aid in the treatment of any of the diseases of the cavity of the uterus; viz., ronic endometritis, suppurating fibroids or polypi, trescent fœtal remains, and in many instances where tisepsis is required. In cases of abortion, with bsequent fœtid discharge, I have used with good sults Battey's "iodized phenol" and Emmet's apicator.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 27 to May 3, 1879.*

GIRARD, J. B., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Davis, Tex., relieving Asst. Surgeon Woodruff. S. O. 83, Dept. of Texas, April 21, 1879.

HALL, J. D., Capt. and Asst. Surgeon. Assigned to duty at Fort Griffin, Tex., relieving Asst. Surgeon Powell. S. O. 83, C. S., Dept. of Texas.

WOODRUFF, E., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Stockton, Texas, relieving Asst. Surgeon Hall. S. O. 83, C. S., Dept. of Texas.

BROWN, P. R., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort Shaw, and assigned to duty at Fort Bennett, Dak. T. S. O. 39, Dept. of Dakota, April 22, 1879.

MERRILL, J. C., 1st Lieut. and Asst. Surgeon. Assigned to duty at Fort Shaw, M. T., relieving Asst. Surg. P. R. Brown. S. O. 39, Dept. of Dakota, April 22, 1879.

POWELL, J. L., 1st Lieut. and Asst. Surgeon. When relieved, to report in person at these Headquarters for further orders. S. O. 83, C. S., Dept. of Texas.

# Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.— Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending May 3, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| Apr. 26, 1879. | 0 | 6 | 178 | 3 | 43 | 43 | 0 | 0 |
| May 3, 1879. | 0 | 6 | 191 | 0 | 39 | 32 | 0 | 0 |

MEDICAL SOCIETY OF NEW JERSEY.—The annual meeting of the Medical Society of New Jersey will be held in the Palisade House, Englewood Cliffs, on Tuesday evening, the 27th inst., and will continue in session the following day. Steamers will be in readiness at Pier 34, or Twenty-fourth Street, North River, New York, on Tuesday afternoon, to convey all physicians and their families who may wish to attend the meeting, free of charge. Steamer Idlewild will leave at 3.30 o'clock, and steamer Chrystenah at 4 o'clock.

WM. PIERSON, Jr., Sec'y.

ORANGE, May 1, 1879.

RESOLUTIONS ON THE DEATH OF DR. HAYS.—At a meeting of the Philadelphia College of Physicians, held on April 15th, to take action with reference to the death of Dr. Isaac Hays, the following resolutions were unanimously adopted:

*Resolved*, That the Fellows of the College deeply regret the death of their late able and distinguished associate, Dr. Isaac Hays.

*Resolved*, That having in view the welfare of the college, he took throughout his fellowship a watchful and active part in its proceedings; and, while health

and vigor permitted, was unusually constant in his attendance at its meetings.

*Resolved*, That as a member of the Building and other committees, and by his general participation in its affairs, he rendered signal service to the college, contributing greatly to its prudent and conservative policy, and leaving upon all that he said or did the impress of his cautious and deliberative mind.

*Resolved*, That he has largely contributed by his long and able editorship of the *American Journal of the Medical Sciences*, and by his other valuable works, to the creation and diffusion of a sound and healthful medical literature, and thus made himself, in an enviable degree, an instructor and benefactor of his profession.

*Resolved*, That by his faithful services of twenty years in connection with Wills Hospital, and by his various publications on ophthalmic surgery, he gave a wholesome impulse and direction to that department, and won for himself a distinguished place among the oculists of the country.

*Resolved*, That the Fellows, appreciating his learning and his worth, and grateful for services cheerfully rendered during his long and pleasant association with them, will ever cherish a kind and affectionate regard for his memory.

In moving the adoption of the resolutions, Dr. Samuel D. Gross made some remarks eulogistic of Dr. Hays, speaking of the *American Journal of the Medical Sciences*, of which he had been for so many years the editor, as a monument of his industry and learning, no word in which was unworthy of the highest conception of the functions of the editorial chair. He said that regret for the great loss of Dr. Hays in his office was, however, not a little mitigated in that his mantle had fallen upon a worthy successor, his son, Dr. I. Minis Hays, who, full of energy and ability, promises to continue the *Journal* in its long career of success.

RICHARD A. CLEEMANN, M.D.,
Secretary of the College.

UTERINE AND VAGINAL APPLICATIONS—DR. Suesserott, of Chambersburg, Pa., writes: "Long familiar with the almost magical effect of a thick cream of subnit. of bismuth, mixed in pure glycerine, when applied to blistered surfaces, burns, and ulcers externally, as well as the soothing and curative action of the salts of bismuth in ulceration of the stomach, I conceived the idea of using it in ulceration of the cervix uteri. A sufficient experience in that direction has convinced me that the result is no less wonderful than when externally applied. This may possibly be no new suggestion to some of your readers. But, acting on the principle of 'proving all things, and holding on to that which is good,' I would earnestly urge upon all gynecologists, who are not fully satisfied with what they are now using. to give it a trial and report through the columns of your excellent journal. I have used a thick glycerole of tannin, dry tannin, glycerole of aloes, and the various astringent, sedative, and escharotic substances that have, from time to time, been suggested; but there is no one thing that I have applied that gives as much immediate relief as the subnit. of bismuth and glycerine. The congestion of the cervix is at once abated by the glycerine through the exosmotic action that is set up, and the ulcers disappear as though waved away by a fairy's wand.

"If this article is not already too long you may append my method of making vaginal applications, which I will endeavor to illustrate. I have a glass tube, a little longer than, and sufficiently small to pass into, an ordinary reflecting glass speculum. I take a pledget of absorbing cotton, on to which I have tightly looped a cord of sufficient length to project beyond the vulva, when the cotton is in contact with the womb. Having passed the cord through the tube, I draw the cotton in to the extent of an inch or two, so as to have sufficient space for whatever quantity of bismuth and glycerine, tannin, aloes, or whatever I am about to introduce within the vagina. The speculum having been properly applied, so as to bring the ulcerated surface within view, I next insert the tube, with its contents, within the speculum, and with a wire-probe, armed with a disk of metal about three-fourths the diameter of the tube, I press the cotton to its place, withdrawing the tube and holding the application *in situ* until the speculum is partially removed. As soon as the walls of the vagina fall over the cotton, the probe may be taken away and the medicament is just at the spot desired. My custom is to allow it to remain for thirty-six or forty-eight hours, when the cotton is easily removed by means of the cord by the patient herself. After removal I recommend an injection of a saturated solution of borax or slightly diluted whiskey, once or twice a day for two days, when I make another application. If the pledget of cotton is too large it will not remain in place as well as a smaller one; but this must be determined by the judgment of the operator. A glass rod would serve a very good purpose in pressing the cotton out of the tube, and where certain articles, such as tinct. of iodine, have been used, would be better than metal. Its liability to fracture in handling is the only objection that could be urged."

NORTHEASTERN DISPENSARY—REPORT FOR THE YEAR 1878.—This report shows an increased amount of work done by this dispensary. The number of cases treated during the year was 21,438, an increase of over a thousand upon last year. The dispensary treats, therefore, about one-twelfth of all the cases that apply for aid to these institutions. About 3,000 of the patients were treated at their homes, each receiving an average of three calls from the visiting physician. Only ninety-three vaccinations were made during the year, the remarkable freedom of the city from small-pox accounting probably for the few applicants for such relief. A new class for nervous diseases has been established, and this, with the increased number of patients, has caused a small deficit in the treasury.

MORTALITY OF SCARLATINA AMONG THE TENEMENT-HOUSE POPULATION.—Dr. D. W. Perham, one of the district physicians to the Northeastern Dispensary, gives some statistics in regard to scarlatina among the tenement population, which, considering the surroundings, show a surprisingly light mortality. In 104 cases treated during the past winter there were eight deaths. Of these two were from scarlatina maligna, three from acute nephritis, and one from asthma caused by a submaxillary abscess. The youngest patient treated was seven months old. Most cases were treated with M. ij. tr. digitalis every two hours and M. iv. tr. ferri chlorid., with gr. iv. potas. chlorid. every two hours, the medicines being alternated. If this medication was followed up very vigorously, we feel it our duty to compliment the constitution of the average tenement-house child. There were given also, if the fever indicated it, sulphate of cinchonidia in five-grain doses, twice a day. No applications to the throat or skin, and no alcoholic stimulants were used. The statistics are much to the doctor's credit.

# Original Lectures.

## THE PERSONAL IDENTITY OF THE LIVING AND OF THE DEAD.

TWO LECTURES DELIVERED BEFORE THE CLASS IN THE AUXILIARY DEPARTMENT OF MEDICINE.

By JOHN J. REESE, M.D.,

PROFESSOR OF MEDICAL JURISPRUDENCE AND TOXICOLOGY IN THE UNIVERSITY OF PENNSYLVANIA.

(Reported for THE MEDICAL RECORD.)

### LECTURE II.

THE IDENTIFICATION OF THE SKELETON CONTINUED: 1. ITS AGE; THE ORDER OF DEVELOPMENT OF THE FIRST SET OF TEETH—THE DEGREE OF OSSIFICATION AS A MEANS OF IDENTIFICATION—THE PRESENCE OR ABSENCE OF CERTAIN TEETH; 2. ITS SEX; 3. ITS STATURE, WITH A DISCUSSION OF THE SO-CALLED "RULES OF PROPORTION" AS LAID DOWN BY DR. GOULD AND BY M. DE ST. LUCA—THE EXISTENCE OF FRACTURES, DEFORMITIES, AND CALLUS AS MEANS OF IDENTIFYING A SKELETON, ETC., ETC.

IF the only part of the skeleton which is discovered is the *skull*, there can be no difficulty, usually, in recognizing it as human; the only possible doubt might arise about its belonging to one of the higher orders of apes. This mistake, however, could scarcely occur to one versed in comparative anatomy.

The question whether, from the examination of a skull simply, it is possible to decide to what *race* the individual belonged—Caucasian or otherwise—I do not think can be answered with certainty. Doubtless, well-marked *typical* skulls may be identified as belonging to some particular race, *e. g.*, the Negro or Caucasian; but we must remember that these points of distinction shade away, in many instances, so as to make it extremely difficult, if not impossible, to give a medico-legal opinion in an isolated case.

Another point to be noticed here is the importance of ascertaining whether all the bones submitted for inspection belong to one and the same skeleton. The mere fact of their being discovered together does not necessarily prove it, since they might have been so placed designedly for the purpose of eluding detection.

In the identification of the dead by means of the skeleton, or by detached bones, the three leading points to determine are the age, the sex, and the stature.

#### THE AGE AND THE ORDER OF DEVELOPMENT OF THE TEETH.

This can usually, in young subjects, be pretty accurately determined by the development of the teeth, and by the progress of ossification in the different bones. In the skeletons of newly-born children, and before the teeth have appeared, it may become important for the medical jurist to be able to decide upon the age, in order either to confirm or rebut a charge of infanticide. It is authoritatively stated that in the jaw of a child at full term there will always be found the rudiments of twenty-four teeth—twenty primary teeth and four permanent molars. Hence, if only the jaw of a child can be found, medical evidence may be given of its probable age. The average date of the eruption (or *cutting*) of the teeth, I would remind you, is as follows: The four central incisors appear in from *five* to *eight* months; the four lateral incisors in from *seven* to *ten* months; the four anterior molars in from *twelve* to *sixteen* months; the four cuspidati in from *fourteen* to *twenty* months; and the four posterior molars in from *eighteen months to three years* (Bell). Between six and seven years the jaws contain forty-eight teeth—twenty temporary ones, in a perfect state, and twenty-eight permanent ones in an imperfect state of development, and placed behind the temporary teeth, which they are to replace. According to Mr. Saunders, the order in which the permanent teeth appear is as follows: At *seven* years the four anterior molars; at *eight* years the four central incisors; at *nine* years the four lateral incisors; at *ten* years the four anterior bicuspids; at *eleven* the four posterior bicuspids; at *twelve* to *twelve and a half* years the four cuspids; and at *thirteen* to *fourteen* years the four second molars—making the whole number of teeth at this period to be *twenty-eight*. The four remaining teeth (*dentes sapientiæ*) do not usually appear until eighteen to twenty-one years of age. Generally, the teeth of the lower jaw are cut first. You must not forget, however, that some irregularities may occur in the appearance of the teeth: the above description is intended to apply only to the average cases. Now, let us take an example or two, by way of illustration. Suppose we were to discover the jaw of a child in which *twelve* permanent teeth were apparent—eight incisors and four molars; we should decide that the age was *nine years*. If the jaw contained *twenty-four* permanent teeth—eight incisors, four molars, eight bicuspids, and four cuspids—we might conclude the age to be *thirteen years;* and so on. Before closing this branch of the subject I have one other observation to make. There are two diseases which affect the growth of the teeth, viz., rickets and syphilis. In a rickety child the first teeth do not usually appear until after the twelfth month; whereas, in cases of congenital syphilis, the teeth appear before the sixth month, but have a very peculiar look. They are notched, and are apt to be brittle and to crumble easily.

#### THE DEGREE OF OSSIFICATION AS A MEANS OF ACCURATE IDENTIFICATION.

As already mentioned, the age of the skeleton is also indicated by the *degree of ossification*, especially in early life. According to Beelard, the extent of ossification in the lower epiphysis of the femur affords the most certain evidence of the age of the fœtus and of the new-born child. Thus, if no ossific point can be seen in this cartilaginous epiphysis, it is certain that the fœtus has not attained to the eighth month of utero-gestation. If the osseous deposit is as large as a poppy-seed, it is probably in the last month; and if it has acquired the diameter of a line and a quarter to one and a half, it has reached the full period. If the point of ossification measures three lines or more, it may be assumed that the child has lived after its birth.

The length of the skeleton of a new-born child is about sixteen inches (average). At the end of the *first* year, ossification has commenced in the extremities of most of the long bones; and this progressively advances from year to year, until the whole process is completed, and the epiphyses of all the long bones are united at full maturity, which in the male may be considered to be twenty-four years, and in the female twenty-two years. After this period, or when ossification is once completed, it is difficult to determine the age by an examination of the bones. It should be remem-

bered, however, that the different bones of the sternum do not unite until about the fortieth or forty-fifth year; and union between the sacrum and os coccygis is not usually completed until fifty-five to sixty years of age. In old age the bones become lighter in weight and more brittle, from the loss of their animal matter; they are also darker in color, and the flat bones become thinner from the absorption of their diploë. In the skull of the aged the sutures are more or less obliterated; and if the teeth have been lost, the alveolar processes become absorbed, and the appearance of the lower jaw undergoes a well-marked change, consisting in the widening of the angle at its neck, and a general rounding of the bone, which imparts the characteristic senile expression to the mouth of the aged. Now, the discovery of such a jawbone would positively determine the age to be about sixty years or over.

### THE PRESENCE OR ABSENCE OF CERTAIN TEETH.

The presence or absence of certain *teeth* in the head has frequently been the means of determining the identity of the body. So also the presence of artificial teeth, with their mechanical appliances, has furnished the strongest corroborative evidence of such identification, as in the celebrated Parkman-Webster case, where the artificial teeth, discovered undestroyed in the fire in which the head had been burnt up, were positively identified by the dentist, who had manufactured and fitted them some years before. So, likewise, the remains of the Marchioness of Salisbury, discovered among the burnt ruins of Hatfield House, were identified by the jawbone having gold appendages for artificial teeth (Gay).

### THE SEX OF THE SKELETON.

This can usually be determined from the skeleton, if entire, without much difficulty. I need not here go into a detailed description of the difference, well marked between the male and female skeleton; I refer you for these points to your instructions in anatomy and gynæcology. Suffice it to say, that the corresponding bones of the skeleton differ in size, strength, weight, and prominences. There are certain recognized differences in the head and thorax; but it is in the *pelvis* that the most characteristic differences are observed. The male pelvis is narrower and deeper than the female. In the latter the ossa ilii are flatter and more everted, giving the whole pelvis a greater capacity; the sacrum is broader and turned more backwards; the arch of the pubis much wider; the greatest diameter is the bilateral, whereas in the male it is the antero-posterior. The foramen ovale in the female is triangular; it is more oval in the male; the acetabula are farther apart in the female. It is understood that these peculiarities in the female pelvis are not exhibited until after puberty. From a fragment of a bone merely, I should judge that it would be hazardous to undertake to determine the sex; and the medical jurist should certainly exercise much reserve in giving an opinion in such a case.

### THE STATURE OF THE SKELETON.

When the whole skeleton has been preserved, and none of the ends of the long bones have been lost by decay, the original height may be pretty accurately calculated by adding an inch and a half to two inches, for the soft parts, to the length of the skeleton. But even here, absolute accuracy cannot be attained, chiefly on account of variations in the curve of the spinal column in different individuals. Dr. Dwight assumes, as the result of numerous observations, that the total height of the intervertebral cartilages is 25.6 per cent. of the entire length of the spine.* As a collateral aid in estimating the stature, we may have regard to the generally accepted rule that the top of the symphysis of the pubes is about the centre of the body in average women; whilst in men, the centre is a little below the symphysis.

### THE "RULES OF PROPORTION."

If only certain bones of the skeleton can be found, the estimate of the stature becomes much more difficult and uncertain. The so-called "rules of proportion" of the human body are not to be relied on here. In case of loss of the head, the rule laid down by Dr. Gould is "to find the height of the spine of the seventh cervical vertebra from the ground, and add to this 9.95 inches, which is the average height from this point to the top of the head."†

M. de St. Luca (*Cosmos*, Oct. 2, 1863, quoted by Dr. Taylor) states that an approximative estimate of the stature may be obtained by measuring the length of the first phalanx of the middle finger, thus: this phalanx is equal to one-fourth the length of the whole hand, including the carpus; the hand is one-fifth the length of the arm; double the length of the arm (or the two arms stretched out transversely), added to the length of the two clavicles, together with the breadth of the sternum, is equivalent to the height of the body. In applying this rule, however, we must not forget that the length of the hand, and especially that of the fingers, varies materially in persons of the same height; and so trifling a variation in the first phalanx of the middle finger as the one-sixteenth of an inch, would, according to this method of calculation, figure up as great a difference in the total result as two and a half inches.

### THE EXISTENCE OF FRACTURES, DEFORMITIES, AND CALLUS

in a skeleton, sometimes afford valuable aid in its identification, even many years after death. In relation to the production of *callus*, it is well understood that this substance is the product of the reparative inflammation of bones; and that its presence is a certain indication that some time must have elapsed between the injury and the death of the individual.

Some notable illustrations might be given of the identification of the skeleton by means of the above marks, and even of determining the actual cause of the violent death. In the year 1823, a soldier living in the south of France suddenly disappeared; and although there was a strong suspicion of his having been murdered, more than two years elapsed before the authorities interfered, and search was made for the missing man. Some human remains, chiefly bones, were discovered in the garden of the suspected murderer. Of course, it became necessary to identify this skeleton. It was remembered that the deceased had a singular personal deformity, in possessing a sixth finger on the right hand, and a sixth toe on the left foot. On examination it was ascertained that the fifth metacarpal bone of the right hand was shorter and broader than the corresponding bone of the other hand, and further, that there were two articulating surfaces on its digital end, indicating clearly the existence of a supernumerary finger. In the same way the fifth metatarsal bone of the left foot showed two distinct articulating faces on its digital extremity, in-

* The Identification of the Human Skeleton, by Thomas Dwight, M.D. Boston, 1878.
† Ibid.

dicating the existence of a supernumerary toe. Besides this, the age and stature of the skeleton corresponded with those of the missing man. But even further than this, a close inspection of the skull revealed the distinct marks of a depressed and radiated fracture of the temporal bone, which showed no sign of reparation by the formation of callus. Evidently then, death had occurred very soon after the fracture of the cranium, and, in all probability, as the direct result of violence.

An instructive case is mentioned by Dr. Taylor, of an Englishman who was tried in India for the murder of a native, who had been beaten by the former, with the alleged effect of breaking his rib and subsequently causing his death. A skeleton had been dug up three months after the decease, which was almost completely denuded of flesh, the bones clean and dry; *one rib fractured*, with a deposit of callus around the broken extremities. The identity of these bones with those of the missing man was attempted to be established, but unsuccessfully, in consequence of their dry and denuded state—a condition altogether incompatible with so short a period of time as *three months* since death. Moreover, the amount of callus thrown out made it evident that more than a week must have elapsed before death took place—and therefore supposing the bone to have belonged to the deceased, that this fracture must have been produced some eight or ten days before death.

Sometimes, on the exhumation of bones, the medico-legal question arises, how long have they been buried in the ground? It is impossible to answer this question with any precision, after all the soft parts have disappeared—which commonly requires about ten years. In a dry soil, the skeleton will resist decomposition for a considerable time; bones have been found in a perfect state thirty or forty years after burial. As decomposition in bones progresses, they become lighter in consequence of the loss of animal matter, and the color externally grows darker; the ends gradually become brittle and crumble away, and finally the shaft of the bone undergoes the same disintegration, the animal matter alone remaining unaltered. Denugie states that the bones of King Dagobert were found in a tolerable perfect state, enclosed in a coffin and sarcophagus, at St. Denis, after the lapse of twelve hundred years; and Dr. Taylor mentions that the skeleton of William Rufus was found in a stone coffin at Winchester, nearly perfect, after seven hundred and eighty years' burial. The bones of Abelard and Heloise were so well preserved, that after a lapse of five hundred years the female skeleton could be readily distinguished from the male.

If the bones have undergone *calcination*, as when a body has been burned with the intention of destroying the identity, especially in cases of infanticide, it may still be possible to determine whether the remains are human, or those of one of the inferior animals, unless the calcination has been so complete as to reduce the bone to powder. In the latter case, although a chemical analysis of the ash might detect the *phosphate of lime*, this would throw no light upon the subject of inquiry, since the ash of human and animal bone is identical.

In some remarkable cases the identification of a skeleton has consisted in the discovery of its burial place. Thus the body of Henry IV. of England was discovered in quite good condition in Canterbury Cathedral, some four hundred and fifty years after its burial.

So, too, only fifteen years ago, the tomb of Charles I. was opened and its contents examined. His body was identified by its well-known resemblance to pictures and busts of the king, by the pointed beard and unusually high forehead, and by the fact of the severance of the head from the body.

## LARYNGEAL PHTHISIS.

By F. H. BOSWORTH, M.D.,

LECTURER ON DISEASES OF THE THROAT AT THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

(Read before the County Medical Society, Monday, March 24, 1879.)

### PART I.

WRITERS on purely clinical medicine, such as Louis, Cruveilhier, Trousseau, and others, as a rule, uphold the doctrine of the non-tubercular character of laryngeal phthisis; while Virchow, Rokitansky, Foerster, Rindfleisch, and the first authorities in pathological anatomy, teach that the disease is primarily due to a deposit of tubercle. The former of these views, as more perfectly harmonizing with the development, progress, and clinical history of the disease, and more clearly explaining the pathological changes observed during its course, is the one adopted by the writer; and the object of this paper is mainly to present certain considerations as bearing on this question from a clinical standpoint. The term ulcer is one which in late years has fallen into an extremely loose usage in connection with the mucous membrane of the fauces, both at the hands of physicians and the laity, and the great frequency with which we hear of ulcerated sore throats would lead one to suppose it to be among the commonest of diseases, whereas, excluding the simple erosions or excoriations of the superficial layer of the mucous membrane met with in acute catarrhal inflammations, and confining the term ulcer to what it is, a solution of continuity, with a progressive loss of tissue, molecular death of the parts, it is, in truth, of comparatively rare occurrence.

In the twelve months from March 20, 1878, to March 20, 1879, there have been recorded at the Bellevue Throat Clinic 1,827 new cases. Of these there were 39 cases of syphilitic ulceration of the pharynx or soft palate, 35 cases of laryngeal phthisis, 21 in the ulcerated stage and 14 in the earlier stages; 18 cases of syphilitic laryngitis, 11 ulcerative and 7 showing other conditions, such as stenosis, etc.; 4 cases of specific ulceration of the tonsils, and 5 cases of epithelioma of the tonsil, palate, etc., making, in all, 80 cases in 1,827, or about 44 in 1,000.

It may be asserted as an axiom that ulceration of the mucous membrane of the throat never occurs as a purely local affection, unless possibly as the result of traumatism, but that it is always the local manifestation or accompaniment of a general condition or constitutional disease. Excluding syphilis, epithelioma, scrofula, and lupus, as embracing all the other varieties of chronic ulceration, and, of course, the ulcerations which sometimes occur in the exanthems, including scorbutus, we have left a group of cases of laryngeal ulceration which pursue so nearly the same definite course, present so closely the same appearances, and manifest so uniformly the same subjective symptoms, that we class them as constituting one and the same disease under the head of laryngeal phthisis.

We may define laryngeal phthisis, or the so-called tubercular laryngitis, as a disease characterized by the development in the mucous membrane of the larynx, under the influence of some marked general non-specific dyscrasia, of an ulcerative process, chronic in character and slow in its destructive progress, which

commences in the superficial layer of the membrane, and, if not arrested, extends to the deeper tissues, attacking the perichondrium and cartilages, involving them in caries and necrosis.

In the large majority of cases it occurs in connection with chronic pulmonary disease; but we meet with it alike in tubercular and non-tubercular disease of the lungs.

As a rule, it occurs after the development of the lung trouble, but it may also occur before it is possible to detect by physical signs any evidence that the pulmonary tissues are diseased, but in these cases there is manifest always an impaired condition of the general health.

It may occur, also, from scrofula, malaria, syphilitic asthenia, anæmia, chlorosis, Bright's disease, or any of those general conditions which markedly impair the health and weaken the power of resisting disease.

The upper air-passages, exposed as they are to the first ingress of the inspired air, with its varying temperatures and conditions of dryness or humidity; exposed, also, to the deleterious influence of whatever of impurities it may contain, such as particles of dust and irritating vapors or gases, are exceedingly liable to become the seat of a catarrhal inflammation, which, having occurred once, leaves behind it an especial liability to its recurrence.

The larynx is also the seat of a constant functional activity in the various movements involved in the acts of phonation, respiration, and deglutition, the influence of which in aggravating an existing morbid condition we are often too apt to overlook. If, then, to an existing catarrhal inflammation, with the above-mentioned unfavorable incidents of locality, there is added a blood condition inviting disease to the most weakened part, be it the tuberculous diathesis, the syphilitic, the scrofulous, or any of the conditions lowering the vitality of the system and lessening its power of resisting disease, we can easily account for these chronic and destructive ulcerations in the larynx, which we call laryngeal phthisis, without entering into the perplexities, bewilderments, and discouragements of the question of tuberculosis; indeed, it is not an extravagant statement to assert it as the conviction of a very large proportion of physicians, that the science of medicine would to-day be further advanced had the word tubercle never found its way into medical literature. Discarding, then, the doctrine that tubercle plays any part in the production of laryngeal phthisis, and regarding the disease as one in which we have a catarrhal inflammation developing into an ulcerative process under the influence of the constant irritation of ceaseless functional movement, added to an impaired condition of the general health, and we have an explanation of the cause of the disease which more fully harmonizes with its development, clinical history, and course, than any other. That the constant movement to which the larynx is subject plays an important part in the causation of laryngeal phthisis is still further shown by the fact that the earliest manifestation of the disease is seen in that portion of the organ which is subject to the most constant and restless motion, viz., the arytenoid cartilages and the interarytenoid commissure, the special movements taking place in these parts being such as would naturally tend to aggravate and irritate an inflammatory condition, the commissure being folded upon itself, and squeezed, as it were, between the cartilages with each act of phonation and respiration.

*A large proportion of cases of the disease occur in connection with and subsequent to the development of pulmonary disease.* The true explanation of this is believed to be, that the pulmonary disease is the cause of the laryngeal disease, and not that the two are developed from one and the same cause. A majority of cases of lung trouble are attended by more or less catarrh of the mucus lining of the larynx. This condition is aggravated by the constant motion to which the parts are subject in phonation and respiration. The constant cough which attends the lung trouble cannot but be an additional source of irritation; and, besides this, the membrane is being constantly bathed by the discharges, often of a fetid and offensive character, which pass over it from below. If, now, the pulmonary disease be of such nature as to lead to serious impairment of the general health, we have all conditions most favorable for the development of the disease we are considering, for the writer strongly holds to the belief that impaired vitality is the most essential factor in its causation.

*Primary laryngeal phthisis, if not arrested, invariably leads to the development of pulmonary disease.* It is generally said of these cases that the pulmonary disease already exists, but is masked by the laryngeal disease, and cannot be detected by physical signs. It is easier to believe that the pain, constant hacking cough, loss of sleep, interference with proper nutrition by the painful deglutition, and the fetid discharges poisoning every breath of inhaled air, all prominent symptoms of the laryngeal disease, must necessarily aggravate the previously existing state of impaired health, and eventually lead to the development of further disease which fixes itself upon the organ most closely connected, anatomically and physiologically, with the one primarily affected, viz., the lungs, the laryngeal disease acting as the direct cause of the lung disease. We thus have established a vicious circle, the one reacting upon the other, and both completing a picture of pain and suffering rarely exceeded in our experience.

The influence of laryngeal ulceration upon the general health is again very markedly evidenced by those cases in which a foreign body becoming lodged in the upper air-passages gives rise to ulceration followed by greatly impaired health, with emaciation and eventually death from this cause or concurrent lung disease.

Among the conditions under which laryngeal phthisis may develop are enumerated the tubercular and scrofulous diatheses, malaria, and syphilis.

The intimate anatomical and physiological connection between the larynx and lungs is sufficient to explain why a very large preponderance of cases of laryngeal phthisis occur in connection with the impaired state of health which attends chronic lung disease. Syphilis is included among the causes, and by this is meant more properly what has been termed syphilitic asthenia, viz., that condition of markedly impaired health we sometimes meet with as the result of infection, in which all specific manifestations of the disease have disappeared. That in this condition laryngeal phthisis may develop, the writer entertains little doubt, having seen such cases in which the progress of the disease and the character of the ulceration in no way resembled the more specific disease, but presented all the features of the ordinary laryngeal phthisis as described further on.

Many writers in treating of the disease describe the first stage as one of anæmia of the larynx. This condition is not a rare one; and while it may, in many cases, exist before laryngeal phthisis, and perhaps excite suspicion, yet it does not point directly to the disease, and presents no features by which we can with

any certainty recognize the threatened danger. There is therefore no sufficient reason for considering it a stage of the disease.

*The first stage* is that of pyriform thickening of the mucous membrane covering the arytenoid cartilages and the interarytenoid commissure. This thickening is peculiar and characteristic. The contour of the cartilages is completely masked and concealed by a thick, club-shaped swelling, while the commissure bulges out in such a manner as to present a rounded mass anteriorly, which oftentimes interferes with the approximation of the cords, while at the same time it extends upward so as to reach nearly to the level of the cartilages and fills up the normal notch between them. The mucous membrane is reddened throughout the larynx, and presents a moist, boggy appearance, especially over the swollen arytenoids, where it is covered with mucus or muco-pus.

*The second stage* is that of infiltration of the epithelial coat of the mucous membrane. In this stage we first notice what constitutes a prominent feature of laryngeal phthisis, viz., an excessive cell-proliferation. There appears on the surface of the membrane a small whitish-gray patch slightly raised above the surface, and seemingly an infiltration of its epithelial layer. This occurs in a majority of cases on the laryngeal face of the arytenoid commissure. Its next most frequent site is one of the ventricular bands, and then indifferently in other portions of the organ. These patches may present themselves in groups when they are very small, or they present themselves singly, when they may attain a considerable size. Their duration is very limited, as they rapidly run into—

*The third stage*, which is the stage of fully developed ulceration. This change the writer has watched in several cases, and has seen the grayish patch gradually change from an apparently quiescent state to one of active discharge. The superficial layer of epithelium being thrown off and new cells being produced, they gradually degenerate into pus cells; the surface of the formerly gray patch becomes yellow in color, the discharge becomes purulent in character, and the ulcerative action becomes established. The ulcer extends by extending its margins, and also by attacking and eroding the parts beneath, and the waste of tissue commences which gives name to the disease. The ulceration may be small, or cover a comparatively large surface. It may be made up of a number of minute points of ulceration, as most frequently occurs when the disease attacks the epiglottis, or there may be several large ulcers distributed in different parts of the larynx.

In this stage we notice more prominently the excessive cell-growth which characterizes the disease. While the destructive ulceration goes on we find developed, sometimes on the ulcerated surface, but more frequently on its margins, small, pointed, warty growths, which may be so extensive at times as almost to conceal and overshadow the ulcerative process; they are very soft, pliable, and easily removed. The error is sometimes committed of picking them off with the forceps, but experience generally teaches the wisdom of letting them alone—certainly until the ulcerations have been entirely healed.

During the second stage often, but far more frequently during the third stage, there may occur a development of the disease of most serious import, in that it not only increases in a marked degree the sufferings and distress of the patient, but also renders the prognosis very much more grave. This consists in the occurrence of an acute follicular inflammation, involving the mucous membrane of the epiglottis, expending itself mainly upon the follicles so richly distributed about the crest, or it may attack the arytenoids. Its onset is characterized by the sudden pouring out of an exudation into the follicles of the same character probably as that which occurs in the second stage of the catarrhal form of the disease, as before described; but in the one case it infiltrates the epithelial layer of the membrane, while in the other it is deposited in and distends the follicles. It occurs with great suddenness and without warning, a few hours often being sufficient for its development. An examination of the parts at the onset of this form of the disease shows the epiglottis swollen, and the mucous membrane in a state of active acute inflammation; the crest is rounded and thickened, and on the surface of the swollen membrane are seen minute projecting points thickly distributed, of a pearly white or gray color, and slightly clouded, as if seen through a diaphanous covering. The appearance resembles very closely that of a tonsil in a state of acute follicular inflammation in which the morbid condition is probably much the same, with the exception that in the case of the tonsil, the follicles being so much larger and more capacious, the projecting gray points are far more prominent and larger. The subsequent progress of this form of the disease is marked by the breaking away of the covering of the follicles, the purulent degeneration and discharge of its contents, and the formation of a minute point of ulceration at its seat, which by a slow process extends its margin until it coalesces with others; and finally, we may have the whole crest of the epiglottis and a portion of its posterior face involved in a sluggish and slowly destructive process of ulceration; the surfaces become clogged and covered with a dirty-looking, grayish muco-purulent discharge. This condition constitutes what is usually termed the epiglottic form of the disease, and is unquestionably laryngeal phthisis; but whether what has been described as the first stage is one and the same disease with this form, may be questioned by some. Having carefully observed a number of cases which, resisting efforts to arrest the disease, passed progressively through all these stages, the writer holds firmly to the conviction that they are one and the same disease, and one of the main objects of this paper is to urge the importance of recognizing this fact; and hence, the imperative duty of making every effort to arrest it in its early stages, before the later and more intractable form of the disease has set in.

The other appearances which we meet with are secondary and dependent upon the ulceration, such as: acute catarrhal and phlegmonous inflammation of the mucous membrane lining the larynx, and not involved in the ulcerative action; œdema of the loosely-attached portion of the mucous membrane, or the ary-epiglottic folds, and the laryngeal face of the epiglottis; and perichondritis and necrosis of the cartilages.

*Subjective Symptoms.*—As the above described conditions develop, the subjective symptoms become prominent: these are pain, cough, difficult and painful deglutition; hoarseness, if the cords are affected; aphonia, if the thickened condition of the arytenoid commissure prevents their approximation.

In the first stage the symptoms are not prominent; there is an irritated condition, with a sense of prickling or tickling in the throat, and there may be some pain in swallowing, due to pressure on the filaments of nerves distributed in the swollen parts. As the disease progresses we have the severe and oftentimes exquisite pain due to the pressure to which the parts are subjected in the movements of respiration, phonation,

and especially in deglutition. If the epiglottis is involved the subjective symptoms become greatly aggravated, the pain and difficulty in swallowing become oftentimes most acute, and even the movements of the larynx in respiration or talking become a source of extreme suffering. The food is often regurgitated, and any attempt to swallow food or drink is made with reluctance, on account of the exquisite pain caused by the act; the additional element of pain being due to the mechanical pressure of the bolus of food upon the inflamed surface.

*Diagnosis.*—In the later stages of the disease this is not difficult. The disease, above all others with which it may be confounded, is tertiary syphilis of the larynx, in which we have the rapidly destructive ulceration, the sharp-cut edges, the excavated surface covered with bright yellow pus, the absence of the warty growths which characterize phthisical ulcers, and especially the areola of red, angry-looking mucous membrane which surrounds it, with the general condition of the patient showing no marked evidence usually of impaired nutrition. In laryngeal phthisis, on the other hand, we have an essentially chronic process of ulceration; the edge of the ulcer ragged and irregular, but not excavated; the surface of the ulcer not markedly depressed, and oftentimes raised above the surface in parts by the excessive cell-proliferation; the absence of the inflamed areola, and the general condition of the patient, always in bad health, and, in a large majority of cases, this due to commencing or existing pulmonary disease; add to this the one subjective symptom of pain which is characteristic of laryngeal phthisis almost without exception, and which is very rarely met with in syphilis, and the differential diagnosis is made comparatively easy.

With lupus, carcinoma, and the various neoplasms which are met with in the larynx, the disease under consideration need rarely be confounded.

But while the diagnosis is not difficult in the later stages, the question becomes an extremely important one whether we have any certain means of recognizing the disease in the first stage, for the writer is confident that when early recognized it is in our power, in certainly a very large majority of cases, to arrest its further progress. The condition described as the first stage of the disease, viz., the club-shaped arytenoid cartilages and the pyriform thickening of the commissure, is believed to be pathognomonic of laryngeal phthisis, and is found in no other disease. This condition the writer has never yet seen except in this disease, or where the diagnosis has not been fully confirmed by the subsequent history of the case, or by other symptoms elicited at the time confirmatory of the diagnosis.

Discarding, then, the old teaching that laryngeal phthisis is a manifestation of tuberculosis, but considering it as a separate and distinct disease, manifesting the symptoms and appearances above noticed, into which a simple laryngeal catarrh may develop, provided there exists the additional impulse toward it of a markedly depraved condition of the general system, due to the tuberculous, scrofulous, or syphilitic diathesis, malaria, anæmia, Bright's disease, or any of the blood conditions which weaken the resisting power of the system, the deduction is obvious: if in any of these conditions subjective symptoms arise of laryngeal trouble, it is of the highest importance that a most careful examination be made, and the case watched with additional care; if nothing more than laryngeal catarrh exists, it should be treated by measures especially directed to the parts, in addition to the measures resorted to for the correction of the general habit; for there can be little doubt that there is an additional danger in the catarrhal inflammation of the development of the disease which we are considering. If there exists the condition described as characterizing the first stage of laryngeal phthisis, there is all the more reason for instituting immediate measures for arresting its further progress.

*Prognosis.*—This, of course, depends mainly on the success of treatment, and is sufficiently noticed by the record of cases appended below; but, in its special relation to lung disease, it seems to the writer that there is a misconception on the part of many authors. We are usually taught that an improvement in the pulmonary symptoms is attended by an aggravation of the laryngeal symptoms, and *vice versa*. This is but a partial statement of the case. In a given case of laryngeal phthisis, occurring in connection with chronic pulmonary disease, a sudden aggravation of the lung disease may be attended with an apparent amelioration of the subjective laryngeal symptoms. How this is so it is difficult to understand. Possibly the increased morbid action in the one organ may act as a derivative from the other; but that anything more than temporary relief of subjective symptoms occur is improbable. And the same may be said of the converse. But these changes and interacting improvements occur entirely outside of, and independently of, any therapeutic measures. In the experience of the writer, any improvement in the laryngeal ulceration, which is due to direct local treatment, is not followed by, or attended with, any aggravation of the lung trouble. On the contrary, the general condition has improved, the lung symptoms have improved; and, in several cases, there has been detected unquestionably very decided amelioration of the lung disease, as shown by physical examination. Certainly in no case has it been possible to trace any direct connection between an aggravation of the one disease and an improvement in the other. In the earlier stages the disease is curable in probably a majority of cases. And even after the occurrence of extensive ulceration and destruction of tissue the writer has seen cases recover. The occurrence of the follicular ulceration, described as attacking the epiglottis, renders the prognosis very grave. And in a majority of these cases the only hope is to relieve somewhat; this can be accomplished in most cases.

*Treatment.*—This consists of four steps, which are regarded as of importance:

First. The thorough cleansing of the parts preparatory for the more special application.

Second. The application of such mild astringents, alteratives, or resolvents as may be indicated.

Third. The application of an anodyne to relieve pain or irritability, and to correct any irritation caused by the previous remedies.

Fourth. The application of iodoform as a specific in its action on ulcerations of mucous membranes.

The cleansing is best accomplished by one of the solutions given below, preference being given to the first.

℞. Acidi carbolici, cryst. ..... ℥xij.
Sodæ bicarb.,
Sodæ biborat., ãã ..... gr. xxiv.
Glycerinæ ..... ʒ iss.
Aquæ rosæ, ad ..... ʒ viij. M.

℞. Sodæ salicylat ..... gr. x.
Sodæ biborat ..... ʒi.
Glycerinæ ..... ʒ i.
Aquæ rosæ, ad ..... ʒ viij. M.

This is best applied by the Sass spray tubes with the compressed-air apparatus, the pressure being about 15-20 lbs. The tongue being protruded, and held, thus lifting the epiglottis and uncovering the laryngeal cavity—the patient being directed to sound in high key A—the point of the tube is passed beyond the crest; and the pressure being let on, the cavity is flooded with the spray before the reflex spasm has an opportunity of shutting off the parts. This should be repeated several times, until the ulcerated surfaces are thoroughly cleansed, and the fact ascertained by inspection with the mirror. This cleansing should always be grateful to the patient; and if there is any pain or irritation caused by it the solution used should be reduced in strength, or changed. Care should always be exercised, of course, to avoid wearying the patient. If nausea or vomiting is caused, the sitting should terminate for the time.

After the parts are thoroughly cleaned an anodyne solution may be used, although this is not always essential. But if during the sitting any of the applications cause pain, an anodyne or soothing application should be thrown in to relieve it. Of these a 5–10 gr. solution of morphine may be used, with the addition of sodæ carb., or potass carb., to give it an alkaline reaction. A small portion of mucilage acaciæ added may increase its soothing effect.

The next step in the treatment consists in the application of an astringent. In the order of preference, these may be used: zinc. sulph., gr. x.–℥ i.; arg. nitrat., gr. iij.–v. to ℥ i.; zinci chlorid., gr. iij.–℥ i.; tannin et glycerin., ʒ i.–℥ i.; liq. ferri persulph., ♏xx.–℥ i. The selection of the special astringent being governed somewhat by the effect and tolerance.

Finally, there should be applied iodoform to the surface of the ulcer. This is used for its specific action; it is easily borne, rarely gives pain, and its effect in many cases is most satisfactory. The formula generally employed is as follows:

℞. Morphiæ..... gr. x.
Tannin..... ʒ ij.
Iodoform..... ʒ vj. M.

Sometimes the saturated solution in ether is used, ♏ xl.–℥ i., but the powder is generally preferable. This application is made with the powder-blower, first suggested by Dr. A. H. Smith, so constructed as to deposit a smooth, even layer of powder on the surface, thus avoiding the objection to the ordinary Rauchfuss insufflator, and instruments of that class which project the powder in mass, and often do harm by their failure to evenly distribute it, and by piling it, as it were, in parts of the organ, thus causing too much irritation. The insufflator of Dr. Smith consists of a small open-mouthed bottle, through the cork of which two tubes are passed, bent at right angles; to one tube is attached a single hand-ball; the other is fashioned to adapt it for the especial application to be made. The powder being placed in the bottle, a single quick pressure on the hand-ball drives a current of air into the bottle, which stirs the powder up into a fine cloud, and drives it out in this state of fine diffusion through the other tube, and deposits it in an evenly distributed thin layer over the parts which it is desired to medicate.

(To be continued.)

DECREASE IN THE NUMBER OF DOCTORS IN FRANCE.—The number of doctors of medicine practising in France in the year 1866 was 11,254, and that of "officiers de santé," 5,568. In 1877 there were only 10,743 doctors and 3,633 "officers," a reduction of 2,446 in the number of practitioners.

# Reports of Hospitals.

## THE PHILADELPHIA HOSPITAL.

### NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

(Reported for THE MEDICAL RECORD.)

#### WARDS FOR DISEASES OF THE NERVOUS SYSTEM.

THE cases found in these wards, which are in charge of Dr. Charles K. Mills, neurologist to the hospital, are chiefly examples of chronic organic disease of the nervous system—hemiplegics from hemorrhage, thrombosis, or embolism; cerebral, cerebro-spinal, and spinal scleroses; meningitis, meningo-encephalitis, and meningo-myelitis; epilepsy, hystero-epilepsy, and hysteria; brain tumors, spinal softening, and the like. Acute cerebral and spinal disorders; neuralgias, peripheral paralyses, local spasmodic diseases, and similar affections, are sometimes, but not so frequently, represented.

#### ELECTRICITY.

In connection with the wards, a large apartment, known as the *Electrical Room*, has been fitted up. It contains one of Flemming & Talbot's permanent batteries of sixty cells, and a fine faradic instrument from the same manufacturers. The wards are also supplied with portable galvanic and faradic instruments.

Dr. Mills, during the past year, has used electricity with marked success in the treatment of bed-sores, which, in spite of the best of care, are apt to form in cases of spinal and cerebral disease. The "silver-and-zinc-plate" method is the one generally employed, a silver plate being placed over the sore, and a zinc plate (connected by a wire with the silver) on a piece of acidulated chamois skin or paper lint, which rests on the unbroken skin a few inches above. A weak current from the galvanic battery is sometimes used instead of the plates. A silver plate applied to the sore is connected with the negative electrode; an ordinary rheophore, joined to the positive pole, being placed upon the surface near. The séance is continued for from five to ten minutes daily. Many cases of chronic ulceration put into the hands of the neurologist for electrical treatment have been cured by the galvanic plates, or the use of the battery current. Electricity is very effectual in stimulating healthy granulations.

Faradization is used in the wards to improve the condition of palsied muscles; and central galvanization is employed chiefly in spinal affections.

#### METALLOSCOPY AND METALLOTHERAPY.

Numerous experiments in metalloscopy and metallotherapy have been made in the Nervous Wards, only a few of which can be alluded to at present.

In one case of brain tumor with partial anæsthesia of the left leg, a small zinc plate applied to this limb in an hour caused a sensation which was described by the patient as being like that produced by the "battery," referring to a faradic instrument. Other metals were tried, but had no effect. The salts of zinc were used without success, iodide of potassium being the only remedy that seemed to help the case.

Some curious results were obtained in a number of cases of marked anæsthesia from hysteria and spinal disease, to two of which reference will here be made.

One case was that of an unmarried woman, aged twenty-nine, supposed to be an example of hysterical paraplegia and anæsthesia. On two occasions plates of zinc, iron, copper, tin, silver and gold, of about the same size and weight, were placed on different parts of the body simultaneously; at other times the applications were varied—sometimes one plate, sometimes two or three were used. Many trials were made, the patient being blindfolded, and different locations being selected for the same plate. In five instances the patient picked out the zinc plate in from twenty to forty minutes, saying that she felt under it a sensation which she described as tingling, or as like "pins and needles." Twice she referred similar, but weaker, sensations to the plate of iron, but other metals gave no result.

Sensation was temporarily improved, muscular power was apparently increased; and the anæsthetic limbs bled more freely, on pricking them with needles, after the zinc was applied, until the peculiar sensations described were called forth. This patient was kept upon the use of valerianate of zinc for six weeks—sensation, motion, and her mental condition improving. Subsequently, however, she relapsed.

A second case was that of a man, aged twenty-eight; an advanced case of sclerosis of the posterior columns, with almost absolute anæsthesia of the lower extremities. After carefully testing the condition of sensibility and of the circulation, a small zinc plate was applied to the right calf, and a silver plate of the same size to a corresponding part of the left leg. In thirty minutes he began to have a sensation as if needles were pricking him under the silver plate. Two or three minutes later he had a similar, but weaker, sensation under the zinc on the right limb. The plates were kept on ten minutes, during which time he had four alternations of sensation in the two sides. When the pricking sensation was present under the silver plate it would be absent under the zinc, and vicè versa; but it was in each instance much more decided under the silver. On removal of the plates electro-sensibility was decidedly improved. No change of sensibility to the æsthesiometer or state of the circulation was produced. The symptoms in this case were decidedly ameliorated by both nitrate and oxide of silver, but were not permanently benefited by any treatment.

Dr. Mills does not believe that the theory of "expectant attention" will explain satisfactorily all the phenomena which result from metallic applications. Patients do certainly sometimes exhibit metallic idiosyncrasies—whatever may be the explanation. Anæsthesia, even when the result of organic disease, can be temporarily removed by applying pieces of metal. He has observed that two metals will sometimes produce similar effects on the same individual; but, even in these cases, he has always found that one of the two will give rise to more decided sensations, and will be more positively effectual in removing the anæsthesia.

In regard to internal metallotherapy, it is somewhat difficult to arrive at a decision. Irrespective of metalloscopic investigations, the value, in chronic spinal diseases, of the preparations of zinc, silver, and other metals, has long been known. They can also be used with advantage in cases in which no effect is produced by external applications of metals. The salts of silver and zinc will undoubtedly bring about amelioration of serious symptoms in cases in which these metals, when applied to anæsthetic limbs, will be selected by patients in preference to others because of the peculiar sensations which they cause.

### MASSAGE AND SWEDISH MOVEMENTS.

Both massage and Swedish movements are employed to a considerable extent, some of the nurses being trained for this work. Massage is found to be of benefit, even in old cases of paralysis, serving to keep up nutrition and temperature, and preventing trophic changes. In neuralgic and hysterical cases it also often proves of great service.

In the same room in which the permanent electrical instruments are kept, are some simple forms of apparatus for the movement treatment, such as a cross-bar adjustable at various heights, a leaning cylinder for exercising the muscles of the trunk, a stool of the proper height and size for sitting movements, and a lounge or couch so hinged as to be capable of being inclined at various angles. The patients are taught to practice movements with or without assistance, according to the nature of the case.

A movement treatment, without apparatus, is also often used. The kinds of movement usually resorted to, without appliances, are the passive, or the duplicated active. Systematic passive movements are employed for the purpose of preventing, as far as possible, atrophy and deformities. Joints are kept in a healthier condition through the agency both of massage and these passive movements. Duplicated active movements are used in those cases in which the loss of power in sclerotic or paralytic patients, for instance, is not absolute. In conjunction with faradization this method of treatment often results in the marked improvement of the paralyzed limbs, palliating symptoms, and improving circulation and nutrition even of palsied limbs.

### THE ACTUAL CAUTERY.

The actual cautery, either alone or conjoined with other remedies, is frequently resorted to in the treatment of epilepsy, and of chronic spinal diseases. The ordinary cautery-iron, with a button shaped like the blunt end of an olive, has usually been employed, but recently the hospital has obtained a Pacquelin cautery, in which the vapor of pure benzine is forced by an air-blast upon a piece of hot platinum. Superficial applications to the nape of the neck, or along the spinal column, are made every two or three days. The intervals between epileptic seizure has been extended from days to months by the use of the cautery.

### THE TREATMENT OF SYPHILITIC BRAIN DISEASE.

The wards are nearly always well supplied with syphilitic affections of the brain and cord. Iodide of potassium in energetic doses is largely employed. Mercurial inunction has also been extensively tested, and in a few instances with striking results. From half a drachm to a drachm and a half of mercurial ointment is used daily, or every other day, the treatment being persisted in until some effect is produced, or good reasons arise for its discontinuance. Before inunction, the parts to which the ointment is to be applied are well sponged with warm water. Strict attention is paid, at the same time, to diet and hygiene.

### TREATMENT OF SPINAL SCLEROSES.

For the various forms of spinal sclerosis, and particularly for posterior spinal sclerosis, or locomotor ataxia, the salts of silver—the nitrite, phosphate, or oxide—are generally found to be the most efficacious internal remedies. They are used in doses of from one-third to one-half a grain, and are often combined with some bitter tonic, as the extract of gentian or quassia. Electricity, in the form of moderately strong galvanic currents, is also much used; stabile currents

to the spine, and labile currents to the limbs being the most common methods of application. Early in posterior sclerosis large doses of ergot are often prescribed.

#### THE TREATMENT OF CEREBRAL AND SPINAL EXHAUSTION.

Preparations of phosphorus are used in the treatment of cases which show signs of cerebral or spinal exhaustion. A favorite preparation of this substance is the oil of phosphorus of the Prussian Pharmacopœia. This oil is administered according to the following formula, which is also used at the Hospital of the University of Pennsylvania:

℞. Olei phosphorati..... ♏xvj.
Olei gaultheriæ..... ♏viij.
Mucilag. acaciæ, q. s. ad..... f℥j.
M.
Sig. One to two teaspoonfuls three times daily.

The oil of phosphorus itself can be prepared by the following process: "Into five fluid drachms of pure almond or olive oil, contained in a glass flask, drop three grains of transparent phosphorus. Place the whole in a water-bath at 175° F., and agitate until dissolved."

#### CALABAR BEAN IN DEMENTIA PARALYTICA.

Calabar bean is prescribed in dementia paralytica, cases of which, in the early stages of the disease, sometimes find their way into the Nervous Wards. If not promptly relieved, they are transferred to the Insane Department. Pills of the ext. physostig. venenas, each containing from the one-sixth to the one-third of a grain, are given three times daily, the treatment being persistently continued and the effects of the drug constantly watched. Rest, nourishment, and counter-irritation to the head or nape of the neck are conjoined with the calabar bean.

#### GENERAL NOTES.

Cannabis indica, hyoscyamus, conium, morphia, chloral, and bromide of potassium are used to fulfil various indications, such as tremor, headache, sleeplessness, mental symptoms, etc.

#### APOPLEXY.

In the treatment of the apoplectic state the patients do not stand depletion well. Bleeding is seldom employed. Supporting measures are often found to be necessary to carry the cases successfully through the attacks.

## Progress of Medical Science.

Galvanism in the Treatment of Sciatica.—Dr. Gibney has employed this agent in fifteen severe cases of this disease. Eleven cases were entirely cured, only one of which had a relapse at the end of eight months, under strong provocation. A very strong current was employed; in some instances lively erythema was observed around the electrode, and in two patients an eschar was found after the electrode was removed. No bad effects were found to follow these strong currents. With regard to the direction of the current, Dr. Gibney believes that it is immaterial, though all his cases were treated with the ascending current. In the earlier cases the positive pole was placed over the lumbosacral region, and the negative over the seat of the pain. In the later cases, the positive pole was placed over the trunk of the nerve at its exit, and the negative over the seat of the pain. It is best not to move the sponges from place to place during one sitting, as the contractions which follow the breaking of the current prove too irritating to the nerve. If the pains are diffuse, it is better to reach the distribution of a single branch at a single sitting. At the next sitting another branch can be embraced in the galvanic current. The sitting should vary from five to fifteen minutes, and should be held daily, or at least every other day. No internal remedies were employed in any of the cases reported.—*Trans. New York Academy of Medicine*, Feb. 6, 1879.

Two Cases of Syphilitic Paraplegia.—Dr. Buzzard gives the following histories of two interesting cases of syphilitic paraplegia. The first was a male, æt. 25 years, who contracted syphilis one and a half years previously. Nine days before admission to hospital he suffered from intense paroxysmal pain in the right ham, at first dependent on motion, and then occurring spontaneously. Upon admission, patient had severe pain between the scapulæ, and the back appeared to be stiff. When the second lumbar vertebra was percussed, the right leg was seen to twitch. There were sharp pains around the trunk from the nipples to the hips. The lower limbs were analgesic and anæsthetic, more markedly on the right side. The right limb was almost completely paralyzed, the patient being merely able to move the ankle-joint slightly; the power of the left leg was not materially lessened. Reflex excitability was retained. There was paresis of the bladder; the muscles of both legs reacted well to faradism. Pulse 88, temperature 98.4 F. Iodide of potassium was given in doses of ten grains (increased in a few days to thirty), three times a day; the spine was rubbed with mercurial ointment, until the gums became tender. The patient began to improve almost immediately, and on the thirty-sixth day he was up and walking very fairly, but sometimes suffered from a cramp in the back of the right thigh and slight pain in the hypogastric region. The right leg seemed as strong as the left, and there is no defect of sensibility. He was discharged cured on the fiftieth day. This is evidently a case of more or less circumscribed inflammation of the spinal meninges, in the lower dorsal portion of the cord, and affecting chiefly the right half. The meningitis was probably gummatous, and involved especially the internal surface of the dura mater.

The second patient was a female, æt. 29 years, married. She entered the hospital suffering from much loss of power and numbness in both lower limbs, especially the right. She had been attacked three months previously with numbness and formication in the feet, and these symptoms extended upward until the arms became involved. The patient had a feeling as of a tight band around the waist, and suffered from constipation and some atony of the bladder. The left pupil was somewhat smaller than the right, and irregular; eyesight was normal. The ophthalmoscope showed, in the right eye, evident remains of disseminated choroiditis (atrophic and pigmented spots), and, in the left eye, old adhesions of the iris and opacities of the vitreous body. Ten grains of iodide were ordered, three times a day. Within two weeks she had lost the feeling of tightness around the waist, the numbness in the legs, and the delay of the bladder. The hands were still very numb and dead, so that she could not use a needle or pin. The dose was increased to fifteen grains, and at the end of a month she was perfectly well.

Constitutional syphilis was proven by the ophthalmoscopic appearances and by the immediate influence of the iodide. The most probable suggestion appears to be that the lesion was an alteration of blood circulation in the membranes of the cord. The mode in which the affection travelled upward reminds one of acute ascending paralysis, but the length of time occupied in the process and the eventual recovery exclude this explanation. We cannot at present satisfactorily explain the manner in which constitutional syphilis brings about such an altered condition of circulation as we suppose to have been present in this case. It is not, perhaps, extravagant to suppose that there may be a thickening of the walls of minute blood-vessels (with a consequent diminution of their calibre), which gives way to specific treatment.—*The Lancet*, April 5, 1879.

HYDROCELE OF THE FEMORAL CANAL.—Dr. Osborn reports the following as a case of hydrocele of the femoral canal (in other words, a process of peritoneum projected from the general peritoneal cavity, and not a hydrocele of a femoral sac), because, after withdrawal of the fluid no impulse was obtainable on the patient's coughing, nor was there on manipulation any sensation of there being a rupture in the femoral canal.

Caroline S., æt. 52 years, first noticed a swelling in the right groin eighteen months ago; is quite sure that the swelling did not commence during or after a fit of retching. When first noticed it was the size of her little finger, rather elongated, and like a swollen vein. For fourteen months the tumor produced no inconvenience, but four months ago it began to grow much larger, and became very hard. She states that a physician then reduced a portion of the swelling, as it again went back to its original size. Two weeks ago it again became much larger, and very painful.

On examination a tumor was found over the saphenous opening about the size of a bantam's egg, smooth, fluctuating, and transparent by transmitted light, with some hard nodules below and at the inner side. Taxis succeeded in reducing part of the swelling, but the same evening it was again as large as at first. November 8th.—Cyst tapped, and about nine drachms of a clear, pale yellow serous fluid withdrawn. The hard nodules could now be diagnosticated as glands, since similar indurated lumps were felt about the opposite saphenous opening. A pad of lint was bound on by a spica bandage to keep the surfaces of the sac in contact. November 9th.—Cyst found to be still empty; bandage reapplied. November 19th.—Patient got up, wearing a femoral truss, having been confined to her bed during treatment. December 5th.—No accumulation of fluid in the cyst.—*The Lancet*, April 5, 1879.

A URINE-THERMOMETER FOR GYNECOLOGICAL PRACTICE.—Dr. Otto Küstner, of Jena, describes an ingeniously arranged instrument for measuring the temperature of the urine in gynecological practice. The instrument consists of a silver female catheter, which contains in its lumen a self-registering thermometer. The catheter tapers sharply below the point to which the bulb of the thermometer reaches, and in addition to the usual eye at its vesical end, possesses another near the external end for the escape of the urine. The thermometer is firmly soldered to a silver top which fits closely into the outer end of the catheter; this top, with the thermometer attached, can be removed at will. The space left between the thermometer and the wall of the catheter is about equal in area to the lumen of the tapering end of the catheter, so that the urine can pass out freely, bathing the thermometer in its course, and escaping in a stream from the external eye of the catheter. When the instrument is introduced into a moderately filled bladder, the column of mercury in the thermometer attains its maximum point in from eight to fifteen seconds according to the rapidity with which the urine escapes, the rapidity of the flow of urine in turn depending on the usual causes, viz., the degree of distention, the action of the abdominal muscles, the age of the patient, etc. The average quantity of urine that escapes through the instrument in fifteen seconds is about sixty c.cm. (about two ounces), although this, of course, is subject to many differences. The temperature of the body measured in the urine in fifteen seconds and less with this instrument corresponds very closely with the temperature obtained with the same thermometer when left in the vagina for five minutes, the difference, when any exists, being at most 0.1–0.15 of a degree (C.) This fact was verified by a large number of experiments. Hence Dr. Küstner claims that his instrument, against the use of which in gynecological practice no objection can be raised, presents the most certain and rapid method of measuring the temperature of the body.

Oertmann was the first to suggest the measurement of the temperature of the urine as a means of determining the temperature of the body. His method, however, which consisted in urinating on the bulb of a thermometer, was intended only for the use of men, and moreover only for men who pass larger streams of urine. Dr. Küstner endeavored to adapt it to use in the cases of women by introducing a catheter into the bladder and allowing the urine to flow from it over the bulb of a thermometer, but the results were not satisfactory. The temperature of the urine obtained in this way was, it is true, pretty constantly from 0.3–0.5 (C.) higher than the axillary temperature taken at the same time, but still greater or less differences often occurred, the above relation being sometimes reversed. These differences were perhaps partly due to radiation and absorption of heat by the catheter. Moreover, the time required for the mercury to attain its highest point was from thirty to forty seconds. On the other hand, the advantages claimed for the new instrument in measuring the temperature of the urine in women are: the rapidity with which the measurement is taken, the small quantity of urine required for it (even if the patient urinated half an hour before there will be enough urine in the bladder for the purpose), the practically absolute uniformity of the results with those obtained in the vagina, and the convenience of application. — *Centralblatt f. Gynäkologie*, Feb. 15th.

MASSAGE OF THE TONSILS.—M. Quinart describes, in the *Archives médicales belges*, a method of treating hypertrophy of the tonsils that has proved very successful in his hands. The method, which is only applicable after the inflammatory period has passed, consists in massage of the gland, and is carried out as follows: He covers his index finger with alum, introduces it into the mouth, and brings it to bear directly on the tonsil, which is manipulated, with gradually increasing force, over as great an extent of its surface as can be reached. The operation is at first painful and disagreeable; but the discomfort is readily allayed by an emollient gargle. After a few repetitions, it ceases to be painful, and the patients readily learn to practise it themselves.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, May 17, 1879.


## AMERICAN MEDICAL ASSOCIATION.

THE meeting of the American Medical Association at Atlanta, Ga., differed in no very notable respect from many of its more recent predecessors. In fact, the machinery of the organization is so complete, and the provisions for the disposal of almost any amount of business are so perfect, that it would be an exception to have the usual routine seriously disturbed. Of course new questions come up for discussion each year, but they are now, contrary to what it was in former times, disposed of in a dignified and satisfactory manner. During the present session the latter was the case, with scarcely a single exception, the Association doing itself honor by its different recorded votes.

The question of teaching homœopathic students came up as an amendment to the Constitution, under the rule, and was very candidly presented by the Chairman of the Council, with the ultimate result of postponing action for another year. It could hardly have been supposed that the Association would be prepared to commit itself in favor of the amendment, inasmuch as such action would be in conflict not only with common sense, but with the individual rights of students and teachers, and the chartered privileges of all institutions of learning. The regular medical colleges have no more right to deny instruction to any one who is capable of receiving it and who is willing to pay for it, than have any other institutions of learning. The trustees and professors of any of these schools have no more right to impose any conditions as to the subsequent use of instruction thus given, than have any other venders of raw material. As well might the lumberman refuse a sale for his logs, unless the same were to be subsequently fashioned after a particular model which he might prefer, and be subjected to a use which, from his standpoint, was the only proper one. It must be admitted that, from a purely selfish aspect, the question has its serious objections, but when we elevate it to a principle there is but one view of the matter to be entertained—a view which, we are happy to state, was taken by the Association.

The scientific element of the Association was, perhaps, not as marked as on previous occasions, although many of the papers read before the sections were very creditable productions, and called forth interesting discussions. The attendance, under the circumstances, the meeting being held in such a remote locality, may be considered to be unusually large. There was to be noticed a want of system in the management of some of the sections which interfered somewhat with their usefulness. This is not so much the fault of the committee, as it is the almost inevitable result of placing new men upon it each year. What is wanted is experience in arranging the machinery, and this can only be acquired by continuing one or two on the committee for two or three years at a time. This, possibly, cannot be done, as the Association meets from year to year in widely separated localities, and it being necessary that two or more members shall be residents; still, its practicability is worth considering in view of the good results to be obtained.

The choice of the President for the coming year will doubtless meet the approval of the majority of the profession of this country and abroad. Dr. Sayre has fairly won the high distinction which has been conferred upon him by his fellow-countrymen. Not only has he been an active, efficient, and successful worker in the ranks of the profession, but a punctual attendant of the meetings of the Association, and a constant and valued contributor to its Transactions.

The selection of New York as a place for the next meeting is a good one, and our friends from the different sections of the country will receive that return of hospitality which many of the delegates have received from their hands for many years past.

### THE DWIGHT INQUEST.

THE profession has again been represented on the witness-stand, and with the not unusual result of displaying little more than the imaginative resources of medical experts, and the limitations of medical knowledge.

Last November, Col. Dwight, of Binghamton, N. Y., after quite a prolonged illness, in which he suffered chiefly from vomiting, abdominal pains, and great prostration, rather suddenly died.

He had been treated for malarial poisoning, and was supposed to have died from a congestive chill. He had previously insured his life for more than a quarter of a million in various companies, and, as there were rumors about suicide, a post-mortem was authorized. This was very carefully made by Dr. Delafield, in the presence of a number of other medical men. No evidence of poisoning or of violent death was found, in spite of a long and minute examination. Nor were there any notable lesions dis-

covered. There was some hemorrhagic pachymeningitis, the lungs were congested and œdematous, the heart flabby, containing a small amount of blood; the spleen was enlarged, and there was a chronic gastritis. The cause of death was given by Dr. Delafield as paralysis of the heart; by Dr. Burr, the attending physician, as congestive chill. We are not informed as to whether there was a disagreement between these physicians; but, at any rate, it was unanimously agreed that death occurred naturally, and all the physicians signed the report of the autopsy to that effect.

Last April, instigated by the insurance companies, the body was exhumed and another autopsy held on it, it having been claimed that a sufficient cause of death had not been found by the previous one. The bright and shining light in this connection was Dr. Swinburne, a gentleman who had been present at the previous examination and assented to its conclusions. He, however, on this occasion, noted a crease in the [illegible] deceased, which was, he thought, made [illegible] the theory was presented that Col. Dw[illegible] cord around his neck, then looped it ov[illegible] of his bedstead and hung himself. [illegible] and others, who were with him when he die[illegible] before, connived of course at the performan[illegible] crease in the neck had been carefully examined [illegible] the first autopsy, and it was agreed to have been [illegible] a natural one, the deceased having been a full-faced, fleshy man. Under some fresh stimulus to observation, however, this innocent marking made evidence of the triple crime of murder, suicide, and robbery.

The strength of the case for the insurance companies lay chiefly in the fact that Col. Dwight had insured himself heavily while possessing, it was thought, no means of paying the premiums, and further, that no very clear evidence of the primary cause of death was found. The theory of congestive chill was not very strongly supported by the evidence, and only negatively so by the autopsy. Pernicious ague is often, indeed, a boon to those perplexed by obscure and malignant symptoms, as well as a scapegoat for inefficient observation. It is sometimes equally difficult to swear that it has or has not existed, and perhaps on this account it served a tolerable purpose in the present case. The other statement, however, that the patient died from paralysis of the heart, was a senseless and inadequate one as far as explaining the event is concerned. Nevertheless, the report that the autopsy revealed this to be the cause was generally circulated, and the evident insufficiency of such a theory assisted in discrediting the value of the examinations. It was at these two weak points that the insurance companies made their attack, and they succeeded in attracting much attention to their claims. The theory of strangulation, however, which they put forward to account for the death, was ridiculous to the point of imbecility. They lost their cause, and justly, but not so much from the strength of their opponent's case as from the weakness of their own.

The whole affair reflects anything but brilliancy upon the profession and the performers. The spectacle of an intelligent jury listening for days to expert testimony in regard to a fold of adipose tissue was not an impressive one, though it may have had some terrors for the corpulent. It serves, however, to point the moral, which we have drawn before, of the bad results coming from the present system of calling expert witnesses. Ingenuity and imagination seem to be now the most essential qualities of those summoned in this capacity?

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### CONTROL OF CONTAGIOUS DISEASES BY THE BROOKLYN BOARD OF HEALTH.

An account of what has been done in the above direction has been given by Dr. J. H. Raymond, in the "Proceedings of the Kings County Medical Society" for May. Until recently the certificate of a physician was enough for the readmission of children, who had been suffering from a contagious disease, to the city schools. Now, however, a certificate from the Health Department is required, and much greater security is thus obtained. As soon as a case of contagious disease occurs it is reported to the Central Board. Every twenty-four hours a list of these cases is made out and sent to the teachers of the eighty schools in the city, so that if any of their scholars are included, they may be kept from school. In addition, sanitary inspectors visit these cases as soon as reported, and they send a second notice of the case to the teacher of *the* school to which the child belongs. This arrangement secures additional protection, and makes it impossible for any case to go unnoticed. Further regulations require the room in which the sick person has been living to be fumigated as soon as the sickness is over, this fumigation being generally done by burning sulphur in it—about one pound to a thousand cubic feet of air-space. The child is not allowed to return to school until seven days after the last exposure. The means for protection are thus very completely arranged, and seem to have been carefully carried out. No statistics are given showing the practical results of these measures, and it is, probably, too soon to judge of how much good they really do in diminishing the disease.

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### MALPRACTICE.

The medical profession has again been called to answer in court for doing its duty. In 1871 one of the surgeons of the Manhattan Eye and Ear Hospital, in this city, after consultation with both of his colleagues, advised an operation for chronic glaucoma. The disease had progressed so far when the patient entered the hospital that vision was reduced to the discernment of large objects with the right eye, and to only one-half ordinary visual power with the left.

The necessity of an operation was agreed upon by the three gentlemen, then surgeons of the institution, and was performed *secundem artem*. No accident occurred during the operation. Two weeks after the patient left the hospital with vision exactly the same as when she entered it. In a few days after her dismission inflammation developed, and she returned to the hospital with the right eye nearly destroyed, and the left much more impaired than when she was discharged. Another operation was advised upon both eyes. She declined, however, to have it upon but one. This operation was performed without effect, and the patient became blind. It should be stated that the patient was not a pauper, her husband being a man well able to pay for any surgical advice or operation. This fact was unknown at the time of her treatment, and she was treated simply for her board at the rate of *ten* dollars a week. Six years after she instituted a suit against the hospital for loss of her sight, claiming that there was nothing whatever the matter with the left eye when it was operated upon, and that there was an agreement with the surgeon that only the right eye should be interfered with. She brought suit for $50,000 damages. The case came on last week in the Supreme Court, Judge Lawrence presiding, and is now in progress. It turned out upon the trial that the patient was not entitled to gratuitous treatment, and that her husband was a man of means. It was also proven that her husband was present at the operations upon the two eyes, that he made no comments upon the fact that both were being operated upon, and, although in the hospital daily for two weeks, that he never complained to the surgeons, or to any of the authorities, with regard to the operation upon both eyes instead of one; nor did he make any complaint of any kind. The hospital attempted to secure a dismissal of the complaint upon the ground of having secured competent surgeons, and that the directors were not liable for want of skill upon the part of their servants. The judge regarded this as an important question, was not quite decided in his own mind upon the point, but overruled it for the present. The hospital then proceeded to show the character of its surgeons by distinguished general practitioners, and also the facts as to the operation, to which allusion has been made. It was proven that glaucoma, especially chronic glaucoma, is a disease which almost inevitably ends in blindness; that surgical interference affords the only hope of relief; that it is readily diagnosticated with the ophthalmoscope, and that it cannot be positively detected without the aid of that instrument.

The prosecutor gave a very graphic description of the letting out of his wife's eyes—of which he made no complaint at the time of the operation—of seeing the eyes running out upon the cheek, a scientific statement which seemed to make a deep impression upon the jury. It is hardly worth while to seriously comment upon such an outrage as this, for the medical profession is well awafe that they are subject to just such persecution. We need to instruct the lay mind until it can comprehend the fact that surgeons do not wilfully put out eyes; that that is reserved for gougers, and that there are diseases which end in death and deformity in spite of the most skilful care. For the credit of our craft it should be stated that there was no discrepancy of opinion, among all the oculists called, with regard to the nature of the affection and the propriety of the treatment, and that the character of the surgeons of the institution for care and skill was fully vindicated by their professional peers in other branches of the profession. We have simply recited these facts in order, if possible, to aid in uniting the profession in attempting, by influence and legislation, to protect us from similar assaults. The case is still on. Up to this time no medical testimony of any kind has been brought forward to sustain the charges made against the hospital. Next week we shall be able to present the charge of the judge and the verdict of the jury, which, we feel sure, will interest our readers.

# Reports of Societies.

## AMERICAN MEDICAL ASSOCIATION.

### THIRTIETH ANNUAL MEETING,

*Held in the City of Atlanta, Ga., May 6, 7, 8, and 9, 1879.*

TUESDAY, MAY 6TH.—FIRST DAY.

THE Association met in De Give's Opera House, and was called to order at 11 A.M., May 6, 1879, by the President, THEOPHILUS PARVIN, M.D., L.L.D., of Indianapolis, Ind.

Prayer was offered by REV. D. W. GWIN, D.D.

The address of welcome was delivered by DR. JOSEPH P. LOGAN, Chairman of the Committee of Arrangements.

#### MEMBERS BY INVITATION.

The following gentlemen were elected members by invitation: Drs. A. W. Griggs and J. E. McMillen, of West Point, Ga.; C. B. Ridley, of La Grange, Ga.; R. C. Worth, of Decatur, Ga.; J. Dickey, of Thomaston, Ga.; J. C. Walker, of Wilmington, N. C.; W. J. Harrell, of Bainbridge, Ga.; G. Ellis, of Boonville, Mo.; J. B. Roberts and H. N. Hollifield, of Sandersville, Ga.; B. W. Toole, of Talladega, Ala.; R. C. Eve, of Augusta, Ga.; J. T. Slaighter, of Villarica, Ga.; George Homan, of St. Louis, Mo.; and A. M. Owens, of Evansville, Ind.

#### PERMANENT MEMBERS.

The following gentlemen were elected permanent members: Drs. J. M. Johnson, H. L. Wilson, J. F. Alexander, C. Pinckney, Jas. A. Gray, D. H. Howell, W. Dean, H. B. Lea, R. B. Ridley, and J. T. Johnson, of Atlanta, Ga.

General F. A. Walker, of Washington, D. C., was invited to take a seat upon the platform.

LETTERS FROM ABSENTEES.

Letters were read from Drs. H. I. Bowditch, of Boston, J. C. Hutchinson, of Brooklyn, and H. R. Storer, of Newport, regretting their inability to be present at the meeting of the Association.

ANNUAL ADDRESS OF THE PRESIDENT.

Dr. Theophilus Parvin, of Indianapolis, then delivered his address, which was a most scholarly production, and was listened to with profound attention. The following is a brief abstract: After referring to the great subjects of human study—science, literature, philosophy, and theology—he passed to a department of medicine not limited by scalpel, test-tube, and microscope. Knowledge of the intellectual and of the moral nature of man was just as essential to the thoroughly furnished physician as any knowledge of the merely material organism.

WHY MEDICINE?

At the very outset of our inquiries was, Why did medicine exist? What reason for it? It was born of human sympathy; it sprang from the heart of man, and was an evidence of humanity; it lived because it could live; it had a right to live. Medicine came in response to the cry of human suffering. Pain was the first lesson in the book of evil which most human beings read in such bitterness of sorrow. The problem of physical suffering,

THE MYSTERY OF PAIN,

was then considered, and Alexander Bain's definition given: "Pain expresses an ultimate fact of human consciousness, a primary experience of the human mind, resolvable into nothing more general or more fundamental than itself." But why was that fact? The most obvious reason for the existence of pain was that which the word itself signified. Reference was then made to the various uses of pain. Even with the various utilities of pain, it still must be referred to as often a mystery—more was hidden than revealed.

Greater than the mystery of life was

THE MYSTERY OF DEATH.

Here reference was made to what had been written regarding this mystery by Bacon, Fontenelle, Maudsley, Johnson, and others.

WHAT IS MAN?

But what was man, thus made subject to disease and death? In the human ovum, which neither chemistry nor the microscope could distinguish from the common mammalian ovum, there dwelt physical potentialities, species, races, family, individuality. In that ovum there was the assured promise of all that made a perfect organism. The author then referred to

FACTS OF HEREDITY,

intellectual, moral, and pathological. Passing the evolution of the various parts of the human organism, the transition to the external world, and the shades of speculation as to when, where, and how man originated, he passed to the consideration of

MAN AS HE NOW IS,

"the heir of all the ages." The general belief of mankind was that his nature was dual, and expressed by the terms *body* and *mind*.

MAN AS A MATERIAL ORGANISM.

The assertion of human duality included two propositions: first, man had a physical organization; and, second, a mind. He first considered man as a material organism. He did not believe that the phenomena of living beings could all be referred to physico-chemical laws; but we must, with Beale, "accept the idea of vital power as being super-physical, and with that idea its correlate, a living Creator of such power. Passing the perfections of the human body, the speaker reached the second proposition:

"THE COMPLETE CONCEPTION OF MAN INCLUDES MIND."

Had physiology reduced the facts of intelligence to the phenomena of matter? Certain utterances seemed to indicate that some answered the question in the affirmative. Many of the utterances, however, were open to criticism, if not to unequivocal rejection. The speaker then noticed some of the difficulties which were obvious in all schemes of mental physiology, or effort to interpret phenomena of mind by physical facts. The identity of corporeal and of spiritual phenomena was an affirmation which ought to be consigned to the list of impossible hypotheses. The speaker then passed to

THE PROBLEM OF TELEOLOGY,

which commended itself especially to our profession. It was not set aside by the development theory; nor was it to be cast aside because of its abuses. Time was lacking to refer to the evidences of design presented by the human body; nor was it necessary, for every physician knew them. The author dwelt upon that part of his subject at some length. Accepting gratefully all the facts of science, let us beware of rejecting everything that might not be capable of mathematical demonstration, and compelling our assent by absolute necessity. There might be truths more important, but less open; we might hear the deep but distant murmur of the immortal sea as it beat against the shores of Time, ready to bear upon its mighty bosom the children of men from life to life, and the law of continuity be found as true of the spiritual as it was of the material world.

The address was received with great applause.

On motion, ex-Presidents Davis, of Chicago, Gross, of Philadelphia, Toner, of Washington, and Richardson, of New Orleans, were invited to seats on the platform.

THE METRIC SYSTEM.

Dr. E. Seguin, of New York, made a report on the adoption of the metric system by the Association. On motion by Dr. Pallen, of New York, the consideration of the report was postponed until Thursday.

CONSOLIDATION OF SECTIONS.

Dr. A. N. Bell, of New York, called up an amendment offered at the annual meeting in 1878, and moved its adoption. It provided for the consolidation of sections *four* and *five*, to be hereafter known as section *four*, on Medical Jurisprudence, State Medicine, and Public Hygiene, etc.

QUESTION AFFECTING REGISTRATION.

Dr. Lilley, of New Jersey, asked whether a gentleman who was not in affiliation with any regular medical organization, when such organizations existed in the State in which he resided, could register as a permanent member of the American Medical Association upon the claim that he *had been* in affiliation with such organization. Referred to the Judicial Council.

The Association then adjourned, to meet on Wednesday, May 7, at 9.30 A.M.

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WEDNESDAY, MAY 7TH—SECOND DAY.

The Association was called to order at 9.30 A.M. by the President.

Dr. Logan, Chairman of the Committee of Arrangements, announced the following for election as

MEMBERS BY INVITATION.

Drs. T. H. Morgan, of Cochran, Ga.; A. Means, of Oxford, Ga.; J. R. Humphrey, of Acworth, Ga., and E. M. Nolan, of McDonough, Ga.

The following named gentlemen were elected permanent members: Drs. C. A. Simpson and John M. Johnson, of Atlanta, Ga.; Dr. George C. Dugas, of Ga.; J. A. Beasley, of Alabama, and M. J. Ealey, of Lafayette, Ga.

MATERIAL FOR DISSECTION.

A telegram was read from Dr. J. A. Morton, of Columbus, O., announcing that the bill making provision for material for anatomical dissection had passed the Legislature of that State.

On motion by Dr. Atkinson, of Philadelphia, the congratulations of the Association were extended to Dr. Morton, who had been mainly instrumental in securing the passage of the law.

PRESIDENT'S ADDRESS.

On motion of Dr. A. C. Post, of New York, the Publication Committee was instructed to publish 5,000 copies of the President's annual address for *pro rata* distribution among the members of the Association.

DUTY ON QUININE.

Dr. Fricke, of Philadelphia, in accordance with instructions received from his County Medical Society, introduced a resolution asking that the American Medical Association request Congress to leave the present law regulating the duty upon quinine unchanged.

The resolution was laid upon the table.

Dr. Roberts, of Nashville, introduced a resolution asking Congress to remove the duty upon the alkaloids of cinchona.

Carried.

ADDRESS OF THE CHAIRMAN OF THE SECTION ON PRACTICE OF MEDICINE, ETC., BY DR. THOMAS F. ROCHESTER, OF BUFFALO, N. Y.

YELLOW FEVER.

Dr. Rochester introduced his address by a reference to the epidemic of yellow fever which prevailed in the United States last year, and, with a view to answering the questions, Was it possible to ward off its invasion? or, in case of its appearance, to confine it within prescribed limits? he passed first to its *etiology*. Where the disease was born was known. It originated in the West Indies. It never originated *de novo* except in its primal birthplace. It could not be communicated from individual to individual by direct contagion, but through other media. The speaker then traced its mode of spread. Medicine would not cure it, nor would antiseptics or cleanliness prevent the progress of the disease. A *strictly enforced quarantine* was the means by which it must be arrested. Reference was then made to the successful quarantine at the port of New York. He believed that if any agent was ever found which would arrest the disease, it would be gasiform or aëriform. He concluded that part of his address, by urging the establishing of a permanent National Health Bureau.

TYPHOID FEVER.

Reference was first made to the propagation of typhoid fever by means of *drinking-water*, and the credit given to Dr. Austin Flint, of New York, for first directing the attention of the profession to that method about thirty-five years ago. Special reference was also made to a paper on typhoid fever, by Dr. Dr. Van de Warker, of Syracuse, and published in the *Popular Science Monthly*. Dr. Rochester then spoke of the propagation of the disease by means of ice, and cited several instances in which that mode of transmission was very apparent. He believed that the poison was not destroyed or impaired by freezing. A somewhat extended reference was then made to purification of sewage, and the opinion expressed that no sewer should be permitted to empty into a stream.

SANITARIA FOR THE TREATMENT OF PULMONARY PHTHISIS.

Under that head special attention was directed to Alpine sanitaria. Hygiene, in its largest sense, was recommended as the important factor in the management of the disease.

MATERIA MEDICA.

Instead of asking how little medicine was required, it was too common to act upon the principle of how much would be tolerated. Under that head attention was directed to certain new anæsthetics, the too promiscuous use of jaborandi, etc. The new Dispensatory was commended.

PHYSIOLOGY.

Dr. Rochester, under that head, referred to papers by Flint and Busey, Flint, Jr., Richardson, of Boston; Longworth, Bowditch, Whittaker, Loring, and others. In conclusion, reference was made to the telephone and the phonograph. Their possibilities could not be fathomed. The address was referred to the Section on Practical Medicine.

ADDRESS OF THE CHAIRMAN OF THE SECTION ON STATE MEDICINE AND PUBLIC HYGIENE, BY DR. JOHN S. BILLINGS, OF WASHINGTON, D. C.

The number of patent ventilators and gas-traps was steadily upon the increase; but, in our knowledge of the causes of disease and the means of avoiding or destroying those causes, little or no positive advance had been made. So long as we had to contend with municipal and State authorities, which almost absolutely refused even the cost of obtaining reliable information, there was but little hope for satisfactory public hygiene.

If the law creating the National Board of Health was to succeed, it must be supported by medical men, and the call for aid from the Board should be responded to by the American Medical Association, which was the representative medical body of the nation. Its failure would, in a measure, be the failure of the medical profession, and its success would be their success.

The causes of want of interest in public hygiene by medical men were then noticed, and *First*, was the actual deficiency in accurate scientific knowledge upon the subject. There were but few physicians who would hesitate to act as health officers and give advice upon sanitary questions, and yet not one in one hundred had a thorough acquaintance with any one branch of public hygiene. Now, was it strange that such was the case, for the subject had for its true basis physics, biology, and political science.

*Second*. Another cause for the neglect of public hygiene was a distrust of the capacity and motive of some of those who were prominent as professed sanitarians, and that distrust was founded upon the necessary relations that existed between sanitarians and politicians. Such association, however, was inevitable.

The subject of *vital statistics* was then noticed, but

more especially the registration of deaths and disease. Such registration was a necessity to successful public hygiene. No scientific knowledge of the subject could be obtained until the character and the quantity of disease became a known quantity. Mortality statistics would not serve the purpose; and, until we learned how many cases of disease occurred under varying circumstances in different localities, no substantial advancement could be made. The difficulties of the registration of death statistics were then considered, and also the registration of disease. Special attention was directed to an opportunity to be offered for obtaining such statistics for the entire United States, as would be of positive value and furnish definite foundation for legislation with regard to public health. The opportunity would be afforded at the taking of the *next census*. He recommended that an appeal should be made to all the physicians in this nation, through the American Medical Association, to aid in furnishing the information needed. Books for the purpose would be sent to all physicians in the United States, as far as their addresses could be obtained, and they would be sent to any physician who made application for them.

An appeal was made to the medical press and to the profession to assist in the work.

The address was referred to the Section on Public Hygiene and State Medicine.

PRIZE ESSAYS.

DR. N. S. DAVIS, of Chicago, Chairman of the Special Committee to report on the recommendation made by Dr. Richardson in his annual address, relative to encouraging original investigation in medical science by means of prize essays, reported in favor of making alterations in the by-laws providing for four annual prizes of two hundred and fifty dollars each.

The report was signed by Drs. Davis, Gross, and Toner.

As an amendment to the by-laws, the report, under the rule, went over for one year.

CHANGES IN THE PLAN OF ORGANIZATION—PROPOSED AMENDMENTS.

DR. KELLER'S amendment, that nominations for officers should be made only from the members and delegates present at any meeting, was laid upon the table by a vote of 120 to 5.

DR. CALDWELL'S amendment, providing for a section on neurology and electrology, was laid upon the table without dissent.

DR. HITCHCOCK'S amendment was tabled.

DR. MADDUX'S amendment providing for a section on genito-urinary diseases gave rise to some discussion, and was referred to the Surgical Section for instruction by a vote of 78 to 73.

The following amendment, reported by DR. N. S. DAVIS, of Chicago, namely: "And hence it is considered derogatory to the interests of the public and the honor of the profession for any physician or teacher to aid, in any way, the medical teaching or graduation of persons knowing them to be supporters and intended practitioners of some irregular or exclusive system of medicine," was opposed by DR. E. S. DUNSTER, of Ann Arbor, Michigan, in a carefully prepared speech, was discussed by Dr. Davis, who suggested that, while he individually could not willingly teach students under such circumstances, the Association should be very careful about tying the hands of the profession in any respect, and bringing it into collision with public authority; and upon motion made by DR. PRATT, of Michigan, was laid upon the table for one year.

COMMITTEE ON NOMINATIONS.

Drs. W. O. Baldwin, of Alabama; R. G. Jennings, of Arkansas; R. B. Cole, of California; C. Y. Chamberlain, of Connecticut; C. H. Richardson, of Delaware; J. M. Toner, of District Columbia; J. P. Wall, of Florida; G. G. Crawford, of Georgia; H. A. Johnson, of Illinois; J. F. Hibbard, of Indiana; H. B. Ransom, of Iowa; C. V. Motham, of Kansas; Dudley S. Reynolds, of Kentucky; E. S. Lewis of Louisiana; T. L. Estabrook, of Maine; T. B. Evans, of Maryland; L. B. Warner, of Massachusetts; J. H. Jerome, of Michigan; J. H. Murphy, of Minnesota; E. P. Gale, of Mississippi; A. B. Sloan, of Missouri; S. Lilly, of New Jersey; E. Grissom, of North Carolina; M. A. Pallen, of New York; W. H. Mussey, of Ohio; S. D. Gross, of Pennsylvania; C. H. Fisher, of Rhode Island; F. P. Porcher, of South Carolina; J. D. Plunket, of Tennessee; H. W. Brown, of Texas; A. S. Payne, of Virginia; S. Marks, of Wisconsin; W. H. Forwood, of U. S. Army; and T. J. Turner, of U. S. Navy.

The Association then adjourned, to meet on Thursday, May 8th, at 9.30 A.M.

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THURSDAY, MAY 8.—THIRD DAY.

The Association was called to order at 9.30 A.M. by the President.

PERMANENT MEMBERS.

The following gentlemen were elected permanent members: Drs. W. J. Harrell, of Bainbridge, Ga.; S. C. McCormick, of Duluth, Minn.; Thomas R. Wright and R. C. Eve, of Augusta, Ga.; W. W. Evans, of Oxford, Ga.; J. H. Low, James B. Baird, and J. T. Johnson, of Atlanta, Ga.; and A. G. Whitehead, of Waynesboro, Ga.

MEMBERS BY INVITATION.

The following gentlemen were elected members by invitation: Drs. Thomas J. Jones, of Hogansville, Ga.; J. P. Rosser, of Conyers, Ga.; C. F. Patillo, of West Point, Ga.; F. R. Calhoun, of Euharley, Ga.; R. H. Jenkins, of Hogansville, Ga.; David G. Hunt, of Dalton, Ga.; L. B. Alexander, of Forsyth, Ga.; C. H. H. Sayre, of New York; and J. B. Carlton, of Athens, Ga.

DUTY ON QUININE.

The Secretary read a communication that had been addressed to the Chairman of the Committee of Arrangements, and purporting to come from Powers & Weightman, of Philadelphia, and C. T. White, of New York, in which the statement was made that if the duty on quinine was removed they could no longer continue its manufacture.

The communication was laid upon the table.

RESOLUTIONS OF RESPECT.

Resolutions relative to the death of Wm. N. Compton were introduced by Drs. Grissom, Platt, and Toner, and adopted by the Association.

RESOLUTION RELATING TO THE CENSUS.

*Resolved*, That the American Medical Association earnestly recommends to each and every physician in the United States that he shall furnish such information as is requested by the Superintendent of the Census, and that he shall keep such record of his cases for the year beginning June 1, 1879, as will enable him to make this information accurate and reliable. Adopted.

REPORT OF COMMITTEE ON OZONE.

DR. DAVIS, of Chicago, Chairman of the Committee, reported, and offered the following resolution: *Re-*

*solved*, That a committee of *five* be appointed by the President, whose duty it shall be to investigate the practicability of carrying into active operation a plan for obtaining accurate meteorological and clinical observations, and report at the next meeting of the Association. Adopted.

THE REPORT ON NECROLOGY

was presented by DR. J. M. TONER, and referred to the Committee on Publication.

THE REPORT ON SANITARIA FOR CONSUMPTIVES

was presented as received from Dr. H. I. Bowditch, of Boston, and, at his request, the Committee was continued, in order that it might be able to make the report complete. At the request of the Chairman, Dr. Wm. Pepper, of Philadelphia, was added to the Committee.

REPORT ON CATALOGUE OF NATIONAL LIBRARY.

The report announced that Congress had made an appropriation sufficient to allow of the early publication of two volumes.

REPORT OF COMMITTEE ON PUBLICATION.

Thirteen hundred copies of the Transactions for 1878 were published.

The report was referred to the Committee on Publication.

TREASURER'S REPORT.

The balance in the treasury at date was $1,445.66. It was suggested that non-payment of dues for *two* instead of three years should work the forfeiture of permanent membership.

Report accepted and referred to the Committee on Publication.

REPORT OF LIBRARIAN.

The report showed that the library at present contained 2,816 volumes, exclusive of pamphlets.

Referred to Committee on Publication.

STATE MEDICAL SOCIETIES AND STATE MEDICINE.

DR. S. E. CHAILLÉ, of Louisiana, read a paper upon the above subject before the Section on State Medicine and Public Hygiene. By the Section it was referred to the Association, and was read in general session. From general facts with regard to State medicine, and practical conclusions based upon the position occupied relative to the subject by thirty-seven State Medical Societies, he brought forward two important questions which had not been sufficiently considered by the Association—1. What was State medicine? and, 2. What could the Association do to the end that the practice of State medicine could be promoted? The progress of State medicine was dependent upon the enlightenment of public opinion. State medicine was the application by the State of medical knowledge for the common weal, and embraced every subject for the comprehension of which medical knowledge, and for the execution of which State authority, were indispensable. With reference to State medicine, physicians were prone to dwell upon, and to denounce an existing evil, whatever it might be, and to urge its correction, but did not tell *how* it was to be done.

In answering this second question, Dr. Chaillé presented the progressive steps made in Great Britain with considerable detail, for he believed they were the steps which must be taken in this country. To the end of giving the greatest benefit which could arise from the proper practice of State medicine, he proposed a *Standing* Committee upon the more efficient organization of the Association and *all* its branches. Perhaps an executive council should be constituted and charged with the duty of devising ways and means to promote uniformity, as well as to strengthen and harmonize all of its practical operations. As at present constituted, the American Medical Association had little or no knowledge of its component parts; and a *head* which had no knowledge of its parts should be gotten rid of. He suggested that the Transactions of the Association be published after the manner of the Transactions of the British Medical Association. No physician residing in the United States should be elected either as a permanent member or as a member by invitation of the Association unless he was a member of the State Medical Society of his own State, if such an organization existed. Several propositions of like character, and affecting the re-organization of all County and State Medical Societies, were submitted, after which the paper was referred back to the Section on State Medicine for further consideration.

ADDRESS OF THE CHAIRMAN OF THE SECTION ON SURGERY AND ANATOMY, BY DR. MOSES GUNN, OF CHICAGO, ILL.

DR. GUNN'S address consisted of a careful and close argument upon

THE PATHOLOGY OF SUPPURATION.

He reviewed the theories which have been advanced regarding the origin of pus, by Virchow, Cohnheim, and Billroth, and the conclusion was reached that suppuration was not an unmixed evil. It was a dangerous thorn, from which occasionally, at least, a fragrant flower was plucked.

The address was referred to the Section on Surgery and Anatomy.

REPORT OF THE COMMITTEE ON NOMINATIONS.

DR. S. D. GROSS, Chairman of the Committee on Nominations, announced that the committee was ready to make a report.

DR. E. GRISSOM, Secretary, read the following, which was unanimously accepted:

*For President*—Lewis A. Sayre, M.D., of New York.

*For Vice-Presidents*: *First*—R. Beverly Cole, M.D., of California. *Second*—E. M. Hunt, M.D., of New Jersey. *Third*—H. O. Marcy, M.D., of Massachusetts. *Fourth*—F. Perye Porcher, M.D., of South Carolina.

*For Treasurer*—Richard J. Dunglison, M.D., of Pennsylvania.

*For Librarian*—William Lee, M.D., of District of Columbia.

*For Committee on Library*—Johnson Eliot, M.D., of District of Columbia.

*Next Place of Meeting*—New York City.

*Time of Meeting*—The first Tuesday in June, 1880.

*For Assistant Secretary*—Walter R. Gillette, M.D., of New York.

*For Committee of Arrangements*—Dr. S. O. Vander Poel, of New York, Chairman; Drs. Stephen Smith, William M. Polk, Robert F. Weir, Charles Inslee Pardee, A. A. Smith, and Thos. T. Sabine, of New York; Dr. Joseph C. Hutchison, of Brooklyn; Dr. M. H. Burton, of Troy, N. Y.; and Dr. E. H. Parker, of Poughkeepsie.

*For Committee on Prize Essays*—Drs. Austin Flint, Sen., A. C. Post, J. W. S. Gouley, and M. A. Pallen, of New York City; and J. C. Hutchison, of Brooklyn, N. Y.

*For Committee on Publication*—Drs. W. B. Atkinson, T. M. Drysdale, A. Fricke, S. D. Gross, Casper Wistar, R. J. Dunglison, of Pennsylvania; and Dr. William Lee, of District of Columbia.

The Committee also reported the following nominations for Chairmen and Secretaries of Sections for 1880:

I. *Practice of Medicine, Materia Medica, and Physiology*—Dr. J. S. Lynch, of Maryland, Chairman; and Dr. W. C. Glasgow, of Missouri, Secretary.

II. *Obstetrics and Diseases of Women and Children*—Dr. Albert H. Smith, of Pennsylvania, Chairman; and Dr. Robert Battey, of Georgia, Secretary.

III. *Surgery and Anatomy*—Dr. W. T. Briggs, of Tennessee, Chairman; and Dr. J. Powell Adams, of Minnesota, Secretary.

IV. *Medical Jurisprudence, Chemistry, and Psychology*—Dr. James F. Hibbard, of Indiana, Chairman; and Dr. Thomas F. Wood, of North Carolina, Secretary.

V. *State Medicine and Public Hygiene*—Alabama, Jerome Cleveland, M.D.; Arkansas, W. H. Hawkin, M.D.; California, W. F. Cheeny, M.D.; Colorado, C. Dennison, M.D.; Connecticut, C. A. Lindsley, M.D.; Delaware, Wm. Marshall, M.D.; District of Columbia, Thomas Antisell, M.D.; Florida, J. P. Wall, M.D.; Georgia, J. P. Logan, M.D.; Illinois, W. A. Johnson, M.D.; Indiana, J. F. Hibbard, M.D.; Iowa, J. A. Blanchard, M.D.; Kansas, D. W. Stomont, M.D.; Kentucky, S. Brundeis, M.D.; Louisiana, S. E. Chaillé, M.D.; Maine, A. P. Snow, M.D.; Maryland, F. B. Evans, M.D.; Massachusetts, H. I. Bowditch, M.D.; Michigan, H. B. Baker, M.D.; Minnesota, C. N. Hewitt, M.D.; Mississippi, Wirt Johnson, M.D.; Missouri, H. H. Mudd, M.D.; Nebraska, J. Block, M.D.; New Hampshire, G. P. Conn, M.D.; New Jersey, D. A. English, M.D.; New York, A. N. Bell, M.D.; North Carolina, J. C. Walker, M.D.; Ohio, J. C. Reeve, M.D.; Oregon, H. Carpenter, M.D.; Pennsylvania, B. Lee, M.D.; Rhode Island, E. M. Snow, M.D.; South Carolina, R. A. Kenlock, M.D.; Tennessee, T. A. Acberson, M.D.; Texas, H. W. Brown, M.D.; Virginia, F. D. Cunningham, M.D.; Vermont, L. C. Butler, M.D.; West Virginia, E. A. Hildreth, M.D.; Wisconsin, J. T. Reeve, M.D.; United States Army, Joseph R. Smith, M.D.; United States Navy, A. L. Gihon, M.D.

VI. *Ophthalmology, Otology, and Laryngology.*—Dr. Bolling A. Pope, of Louisiana, Chairman; and Dr. Eugene Smith, of Michigan, Secretary.

*For Judicial Council.*—Drs. W. O. Baldwin, of Alabama; N. S. Davis, of Illinois; J. P. Gray, of New York; E. L. Howard, of Maryland; A. N. Talley, of South Carolina; D. W. Stomont, of Kansas; and J. P. Logan, of Georgia.

*For Committee on Necrology.*—Dr. J. M. Toner, of District of Columbia, Chairman; Drs. R. F. Michel, of Alabama; F. W. Hatch, of California; J. B. Cummings, of Arkansas; Chas. Dennison, Colorado; G. W. Russell, of Connecticut; J. H. Richards, of Delaware; J. P. Wall, of Florida; T. S. Hopkins, of Georgia; J. H. Hollister, of Illinois; G. L. Sutton, of Indiana; H. B. Ransom, of Iowa; C. V. Notham, of Kansas; D. S. Reynolds, of Kentucky; E. A. Lewis, of Louisiana; E. F. Sanger, of Maine; J. Morris, of Maryland; L. F. Warner, of Massachusetts; G. E. Ranney, of Michigan; D. W. Hand, of Minnesota; J. M. Richmond, of Missouri; J. R. Black, of Nebraska; L. G. Hill, of New Haven; H. D. Didama, of New York; J. Blain, of New Jersey; F. J. Hayward, Jr., of North Carolina; Starling Loving, of Ohio; Frank Woodbury, of Pennsylvania; C. H. Fisher, of Rhode Island; Manning Simons, of South Carolina; J. B. Lindsley, of Tennessee; H.W. Brown, of Texas; O. F. Fassett, of Vermont; L. S. Joynes, of Virginia; R. W. Hazlett, of West Virginia; J. T. Reeve, of Wisconsin; J. J. Woodward, of District of Columbia, United States Army; and A. L. Gihon, of United States Navy.

### ADDRESS OF THE CHAIRMAN OF THE SECTION ON OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN, BY DR. E. S. LEWIS, OF NEW ORLEANS, LA.

The address by Dr. Lewis consisted of a *resumé* of the literature during the past year upon abdominal palpation, puerperal fever, laparo-elytrotomy, change of posterior position, ligation of the cord, traction upon the lower jaw, treatment of post-partum hemorrhage, treatment of cancer of the cervix uteri, and the treatment of uterine fibroids.

The address was referred to the Section on Obstetrics, etc.

### THE METRIC SYSTEM.

The Association took up the report made upon the metric system, by Dr. E. SEGUIN, of New York, and adopted the following resolutions:

*Resolved*, 1. That the American Medical Association adopts the international metric system, and will use it in its transactions.

2. Requests that those who present papers at its future meetings employ this system in their communications, or reprints thereof.

3. Requests the medical boards of the hospitals and dispensaries to adopt the metric system in prescribing and recording cases; and that the faculties of the medical and pharmaceutical schools adopt it in their didactic, clinical, or dispensing departments.

4. Requests the physicians familiar with the metric system to help their confrères and the druggists in its application; and the delegates present at this session to work up the acceptance of the metric system by their respective county and State societies.

5. Requests our president to name a metric executive committee, of which he shall be the ex-officio chairman, and whose task will be to give unity and rapidity to this metric movement.

### DUTY ON IMPORTED BOOKS AND INSTRUMENTS.

DR. CHAILLÉ, of Louisiana, introduced a resolution petitioning Congress to pass a law removing the duty from any one book or instrument which should be imported to assist in the personal pursuit of scientific study. Adopted.

### COPYRIGHT ON DRUGS.

DR. BRODIE, of Detroit, introduced a resolution which he asked to have referred to the Judicial Council: *Resolved*, That the use of articles thus protected by copyright is a distinct violation of the code of ethics. It was so referred.

DR. TURNIPSEED, of South Carolina, offered an amendment providing for the formation of a section to examine and report regarding the merits and demerits of surgical and gynæcological instruments presented at the meetings of the Association. Laid over under the rule.

The Association then adjourned to meet on Friday, May 9th, at 9.30 A.M.

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## FRIDAY, MAY 9TH—FOURTH DAY.

The Association was called to order at 9.30 A.M. by the President.

### MEMBERS BY INVITATION.

The following gentlemen, on recommendation by the Committee of Arrangements, were elected members by invitation: Drs. J. J. Jones, R. N. Ross, and E. Cross, of Arkansas.

REPORT FROM THE SURGICAL SECTION.

The Surgical Section, through its Chairman and Secretary, reported that the proposition to establish a section upon genito-urinary diseases had been withdrawn.

RESOLUTIONS AFFECTING THE ORGANIZATION OF THE AMERICAN MEDICAL ASSOCIATION, OF STATE AND OF COUNTY MEDICAL SOCIETIES.

The following resolutions, based upon Dr. Chaillé's paper, were offered:

*Resolved*, That a committee on the more efficient organization of this Association and of its branches—consisting of *five* members, be appointed by the President.

*Resolved*, That this committee be instructed to devise and recommend ways and means to secure greater uniformity as well as greater strength of organization of the State medical societies, and all their auxiliary branches.

With these ways and means the following be considered.

1. The compilation of a model code of detailed regulations for the government of State and county medical societies.

2. The requirement from any State medical society of an annual report, to contain certain data (to be specified) necessary to show the condition and progress of each of these State societies and of their auxiliary branches; to also contain a brief summary of the peculiarities of this organization, and of the measures being used by it to promote medical organization; and still further, to contain a brief summary of the laws of the State in reference to State medicine, and of the efforts being made to promote the practice of State medicine. Such reports should be published in the transactions of each State medical society.

3. The publication, in annual transactions of this Association, of a consolidated report of the above reports from each State, together with special notice of the meritorious work done by any of the branches of this Association.

4. The substitution of a periodical medical journal for the present volume of transactions.

5. The non-recognition by this Association of State medical societies which make no provisions encouraging the organization of auxiliary societies in counties, etc.

6. The advisability of electing no person, either as permanent member or member by invitation, unless such person be a member of a State medical society, provided that there be such a society, and recognized by this Association, in his State.

7. The advisability of refusing to admit to this Association delegates of the societies auxiliary to the State societies, unless the certificates of delegation be endorsed by the authorized officer of the State Society.

8. The advisability of refusing to admit any delegates except those selected from and elected only by voting members who have paid all fees due to their respective county and State societies, and of establishing the principle that only those members of branch societies who are entitled to vote, and have paid all fees due, shall be entitled to delegates.

9. The advisability of urging every medical college to have not less than one lecture delivered to every graduating class on the importance to the profession and to the people of medical organization.

The President appointed as committee to report upon the above resolutions: Drs. Foster Pratt of Michigan; S. D. Gross, of Pennsylvania; N. S. Davis, of Illinois; A. N. Bell, of New York, and Alonzo Garcelon, of Maine.

A communication relating to

INTERVENTION OF PHYSICIANS IN EDUCATION

was received from Dr. R. J. O'Sullivan, of New York, and the request that the committee be continued was granted.

DELEGATES TO FOREIGN MEDICAL SOCIETIES.

Dr. E. Seguin, of New York; Dr. L. T. Yandell, of Kentucky; Dr. J. M. Da Costa, of Pennsylvania; Dr. Moses Gunn, of Illinois; and Dr. L. Turnbull and Dr. E. Warner, of Paris, were elected as delegates to represent the Association in medical societies in Europe; and Drs. J. C. Hutchinson, of New York, and Wm. Brodie, of Michigan, as delegates to the medical societies in Canada.

RESOLUTIONS REGARDING THE PUBLICATION OF THE VOLUME OF TRANSACTIONS.

The Committee on Nominations reported the following resolution: *Resolved*, That the Committee on Publication be instructed to advertise for proposals to publish the transactions of this Association in *six* of the largest cities of the Union, and that the contract be awarded to the lowest and most responsible bidder.

Dr. A. M. Pollock, of Pennsylvania, moved to lay the resolution on the table. Motion was lost.

Dr. Foster Pratt, of Michigan, moved to amend by striking out the words "in six of the largest cities of the Union." The amendment was lost by a rising vote of ayes 21, nays 27. The original resolution was then adopted.

HONORARIUM FOR THE SECRETARY.

On motion made by Dr. Grissom, of North Carolino, an honorarium of six hundred dollars [$600] was voted for the Permanent Secretary.

COMMITTEE ON OZONE.

The following Committee on Ozone was appointed by the President: Drs. N. S. Davis, of Ill.; J. M. Toner, of D. C.; S. M. Bemiss, of La.; W. H. Geddings, of S. C.; and H. O. Marcy, of Mass.

METRIC EXECUTIVE COMMITTEE.

The following Metric Executive Committee was announced: Dr. Theophilus Parvin, of Ind., Ex-officio Chairman: Dr. E. Seguin, of N. Y.; Dr. E. Wigglesworth, of Mass.; Dr. J. R. Weist, of Ind.; Dr. E. R. Squibb, of N. Y.; and Dr. Wm. B. Atkinson, of Pa.

ADDRESS OF THE CHAIRMAN OF THE SECTION ON OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY, BY DR. H. KNAPP, OF NEW YORK.

Dr. Knapp's address consisted of brief references to a number of subjects, and a notice of some of the more important advancements made in the departments of ophthalmology and otology.

*Iridectomy* in chronic glaucoma was giving way to *sclerotomy*. *Sympathetic ophthalmia* was transmitted by the ciliary instead of the optic nerve, as advocated by some. Reference was made to *cataract extraction*, to the use of *eserine* and *duboisine*, to ophthalmoscopes, to lid-holders, to tumors of the eye, and to works on pathological anatomy.

Otology showed less extensive, but no less marked advancement than ophthalmology; and reference was made to discoveries in acoustics and the management of mastoid inflammation. A number of instruments and pathological specimens were exhibited.

The address was referred to the Committee on Publication.

PRIZE ESSAYS.

The Committee on Prize Essays submitted the following report: That the prize of one hundred dollars ($100) be awarded to DR. ALLAN MCLANE HAMILTON, of New York City, for an essay on certain forms of primary and secondary (local) degeneration of the lateral columns of the spinal cord, with special reference to an infantile rare form.

RESOLUTIONS OF THANKS.

DR. N. S. DAVIS, of Chicago offered resolutions of thanks to the President of the Association, to the Governor of the State of Georgia, to the Mayor of the city of Atlanta and to all her citizens, to the various railroad and steamship companies that had extended favors, to the local press, and to the Committee of Arrangements, expressing the hearty gratitude of the American Medical Association for the uniform kindness, hospitality, and courtesy which its members had received.

The resolutions were unanimously adopted by a rising vote.

The report of the delegates to the Canada Medical Association was presented by Dr. Wm. Brodie, of Detroit, Mich., and entered upon the minutes.

REPORT OF JUDICIAL COUNCIL.

The Judicial Council reported in reference to Allen County matters, Indiana, that it be postponed until the next annual meeting; and that the American Medical Association did not regard the delegates from the Arkansas Medical Association as entitled to registration, because it did not regard the Society which they represented as a State medical society.

The report was accepted and entered upon the minutes.

REPORT OF COMMITTEE ON STATE BOARDS OF HEALTH.

The Committee on State Boards of Health, who are required to report annually the results of their efforts, state that they addressed the usual memorial to the executives of the States still without State boards of health, and were assured by some of the executives that they would use their efforts to the end desired. They are happy to announce that the legislature of the State of Delaware has adopted such an act, and the board of health of that State is now in process of organization. We now have nineteen State Boards of Health: Alabama, California, Colorado, Connecticut, Delaware, Illinois, Kentucky, Louisiana, Missouri, Michigan, Minnesota, Mississippi, New Jersey, North Carolina, Rhode Island, Tennessee, Texas, Virginia, and Wisconsin. [Signed] W. B. ATKINSON.

The last business in order was the instalment of new officers.

DR. PARVIN, in appropriate remarks, thanked the Association for the honor conferred upon him, the uniform courtesy which it had extended to him during the deliberations of the present meeting, and in laudatory words introduced the President-elect, Dr. Lewis A. Sayre, of New York, who expressed his feeling of appreciation for the highest honor that could be bestowed upon a medical man in this country.

On motion, the President declared the Association adjourned, to meet in the city of New York, on the first Tuesday in June, 1880.

A PHILANTHROPIC BEQUEST.—M. Möring, director of the Department of Charities in France, has just received from a generous benefactor, who chooses to remain unknown, the sum of 300,000 fr. ($60,000), to be expended in the establishment of a home for superannuated workers in metals.

## NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, May* 1, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

AFTER the reading and approving of the minutes, Dr. E. H. Janes, from the Committee on Admissions, reported favorably on the names of the following candidates for resident fellowship, who were afterward duly elected: E. Sanders, Glover C. Arnold, John J. Milhau, Clement Cleveland, William H. Welch, John Shrady, and P. F. Chambers.

There were present, as guests, Dr. David King, of Newport, and Dr. J. W. Roseburgh, of Hamilton, Canada; and these gentlemen were invited by the President to take seats beside him.

The Librarian, Dr. Laurence Johnson, announced that since his last report there had been received thirty-eight bound volumes, seventeen unbound volumes, and eight hundred and seventy-seven pamphlets and journals, and mentioned a number of the names of the donors.

The Corresponding Secretary, Dr. John G. Adams, then made a brief report, and also presented to the Academy a framed copy of the programme of the old Broome Street School of Medicine, which was organized in 1836. It was started by six physicians and surgeons, of whom Dr. Post and himself were now the only survivors, and he believed that in it the first course of spring and autumn lectures ever given in New York was delivered. It was also, as far as he knew, the first private medical school ever gotten up in this city.

After a report by the Committee of Ways and Means, through its chairman, Dr. James Anderson, the paper of the evening was read by Frank H. Hamilton, M.D., LL.D., on

POSTURE AS A MEANS OF RELIEF IN STRANGULATED AND INCARCERATED HERNIA, WITH A GENERAL CONSIDERATION OF THE MECHANISM OF REDUCTION.

In a late number of the *British Medical Journal* there had been published an interesting account of a case of intussusception in a child, which was cured by means of copious injections of thin gruel into the bowel. Dr. Blaker, the physician in whose practice it occurred, attributed the good result obtained mainly to the three following points:

1. Complete anæsthesia, induced by chloroform.
2. An early resort to the injection of gruel.
3. The position of the child when the injections were made, viz.: lying on its back, with the nates raised upon a pillow.

Dr. Hamilton was inclined to attribute more benefit to the last agency than the gentleman reporting the case seemed to do, and the main object which he had in writing the present paper was to set forth his views in regard to the importance of posture in the reduction of strangulated hernia, as well as the reasons why certain positions of the body were of service. When he first contemplated it, he intended it to include a consideration of spasmodic colic and ileus also; but, on account of the extensiveness of the subject of hernia, he was obliged to postpone those topics until some other occasion.

He had collected fourteen cases of strangulated hernia occurring in his own practice, in which a reduction had been accomplished mainly through the agency of posture, but for lack of time he would be able to recite only two or three of them as specimens. Case Number Three of these was as follows: In 1865,

while on duty as one of the attending surgeons to Charity Hospital, his attention was called by the house-surgeon to a male convict suffering from an indirect inguinal hernia which had become strangulated. When he first saw him ineffectual efforts at reduction had been kept up during the whole of the preceding night, and the man was now very anxious to take an emetic, as he said that once before, when his hernia had become strangulated, this had relieved him. It was deemed unadvisable to administer an emetic; but while the house-surgeon was making the preparations for an operation, which it was feared would have to be resorted to, Dr. Hamilton concluded to try the effect of placing the man on a steep inclined plane, with the head downward. Accordingly, the foot of the bed was elevated until its legs rested upon a table; when, in about ten minutes, he had the satisfaction of seeing the hernial tumor disappear altogether. Another case was related very similar to this, which had occurred previously in Buffalo. In 1871, Dr. Hamilton was called to see, in consultation, a gentleman who three days before had been seized with a severe pain in the region of the gall-bladder, which was at first naturally supposed to be due to the passage of a gall-stone. Somewhat more than twenty-four hours before he was called in, however, it was discovered that a hernia (although he had never before had anything of the kind) had descended into the scrotum, and was now strangulated.

He directed that the feet of the patient should be lifted on the shoulders of a strong man; but, after this position had been tried for some time, the strangulation still continued as before. Complete anæsthesia by means of ether was now secured, and then the experiment of elevating the feet in the same manner was again tried; when immediately there followed a successful reduction.

Besides the fourteen cases mentioned above, Dr. Hamilton had seen quite a large number of others in which reduction had been secured by means of posture, but of these he had preserved no special record. Then, in former papers published by him in the Bellevue and Charity Hospital reports, notes had been given of twenty-three cases in which other methods in addition to that of posture had been employed; but even in these he regarded this as the chief agency of successful reduction.

### THE CAUSES OF STRANGULATION.

In order that the mechanism of reduction might be properly appreciated it was necessary that we should arrive at some definite conclusions as to the true causes of strangulation. It had long been taught by various authorities that

### MUSCULAR SPASM

was a most important element in its causation, and in support of this view the writer quoted a passage from Velpeau, which concluded as follows: "All muscular contraction *must* increase the strangulation." Sir Astley Cooper, in speaking of strangulation at the upper ring, stated that a portion of the intestine protruded under the transversalis and internal oblique muscles, and was compressed by them. Ferguson spoke of the use of anti-spasmodics in reduction, and many other authors might have been quoted to the same effect, if time had permitted.

Dewitt said that muscular spasm was *formerly* considered to be a cause of strangulated hernia; but the writer feared that many surgeons still retained this old idea. Dr. Hamilton believed that Velpeau and Sir Astley Cooper were entirely wrong in their opinions on this subject, and he remarked that whatever anatomical reason might be cited in favor of their view, there remained a sufficient pathological reason why this was erroneous, viz., that muscular spasm was always too intermittent and brief in duration to constitute the cause of a condition like strangulated hernia. Such a view of the causation could not therefore be accepted, notwithstanding the high authorities that could be quoted in its support. Skey not only positively denied the agency of muscular spasm, but stated that this was now altogether an antiquated and exploded notion. Antiquated it undoubtedly was; but he regretted that it was hardly as yet to be considered as exploded, since so many still seemed to adhere to it, in spite of the arguments that were adduced to disprove it.

The next point to investigate was, what was

### THE EFFECT OF NORMAL MUSCULAR TENSION.

As a general rule, the position of the patient had no effect upon hernial apertures. Flexing and rotating the thigh inward was frequently recommended in order to facilitate the return of a hernia; but it could be easily shown that such manœuvres were in no way instrumental in relaxing the internal ring, at which the strangulation exists in the vast majority of instances. In hernias of long standing the canal usually acquired an almost cartilaginous hardness, and it was not, therefore, capable of being either enlarged or diminished by posture. Consequently, the diameter of the ring was not affected; and besides, in a considerable proportion of cases the strangulation occurred in the sac itself in these old hernias. The conclusion that must be arrived at, then, was that there were but very few cases in which either muscular spasm or normal muscular action were capable of influencing hernial apertures. In

### FEMORAL HERNIA

the internal or crural ring was almost always the seat of stricture, and it had long ago been demonstrated that posture had no effect in giving relief here. Velpeau and other authorities had acknowledged this; and one reason was the important anatomical position that Gimbernat's ligament held in reference to this condition.

We had now to consider whether in

### DIAPHRAGMATIC AND VENTRAL HERNIAS

(where there were no natural openings), muscular spasm might not be directly concerned in the causation. In consequence of its position, diaphragmatic hernia was entirely removed from observation; but the writer had had the opportunity of seeing a large number of cases of ventral hernia produced by stabs and other similar wounds, as well as some due to gunshot injuries, which one would naturally suppose to be a more frequent cause of this than is actually the case. All such strangulated hernias were difficult to reduce, until the patient had been brought under the influence of an anæsthetic. But in no case had simple relaxation of the muscles proved sufficient; and this was not difficult to explain. In all strangulated hernias the hernial opening was stretched to the utmost. If it were not, there would of course be no strangulation. Consequently, instead of a simple slit, there was now a circular aperture. If we were to suppose, for example, that there was a body like the finger, or a piece of omentum blocking up such an opening, it would be silly to imagine that any amount of muscular relaxation would release it. The same was true in regard to the intestine, which, as a general rule, practically represented a solid mass.

By what other means, whether local or general,

could we hope to relax these apertures? The old surgeons were accustomed to resort to such local measures as the application of warm fomentations, liniments, belladonna ointment, etc. Even at the present day there were good surgeons who recommended warm fomentations, and Prof. Gross advocated cold fomentations; but he believed it would be a difficult task for such authorities to show how fomentations, whether warm or cold, could have the effect of relaxing such openings. There was much more speciousness in the idea that this result could be accomplished by the employment of such general agents as chloroform and other anæsthetics, bloodletting, tobacco-enemata, etc.

That such means were instrumental in relaxing the apertures had seemed a necessary inference; but Dr. Hamilton was not willing to accept this conclusion, since he did not believe that it was founded on sound anatomical and pathological premises. On the other hand, there were more satisfactory explanations of which we might avail ourselves; and it was important to bear in mind in this connection that it was the muscular fibres alone (and not the tendons of muscles), which were relaxed by such agents.

What, then, was

THE TRUE THEORY OF REDUCTION

in the great majority of instances? It had been sufficiently demonstrated, he thought, that it did not ordinarily consist in the relaxation of the hernial canal or rings; and he would now endeavor to show that the reduction was in reality effected by the employment of external pressure, in the form of taxis, and by internal traction: the operation of these forces always being greatly facilitated by paralysis of the muscles. Of the value of taxis, tested as it had been by such long and universal experience, there could be no doubt; but of the practical efficiency of internal traction, less was understood by the profession. This kind of traction might be caused in a variety of ways. Thus, emetics might produce it by the sudden upheaval of the abdominal viscera toward the upper portion of the cavity which they occasioned; and the same was true of cold water dashed suddenly upon the bare skin. In both cases, however, there was also a contraction of the muscles. Emetics, in addition, had sometimes the effect of inducing a violent anti-peristalsis in the intestines. Cathartics were probably of service only by exciting peristaltic or anti-peristaltic movements, and Skey had stated that they caused a dragging-up of the bowel from the sac. But in actual practice neither emetics nor cathartics were often now employed; because, if they were not successful in causing a reduction, they were apt to do harm by increasing the tendency to inflammatory action. In order to facilitate whatever means were made use of, it was generally recommended that the bladder should be emptied, and that, if there was any accumulation of gas in the lower part of the bowels, it should be removed. For the latter purpose, as well as the removal of fœcal matter, enemata were serviceable, and, besides, sometimes had the effect of exciting violent peristaltic efforts. Tobacco-enemata had long been held in repute in strangulated hernia, and were of great service in relaxing the abdominal muscles; but Dr. Hamilton could not believe that this or any other agent (except perhaps in very rare instances) was capable of causing an enlargement of the hernial openings. Still, even when tobacco was employed, he thought that the peristalsis set up by it was its most efficient result, and that the muscular relaxation resulting from its use was of secondary importance to this. It was an agent not without danger, however, and death had been known to follow from the prostration which it caused. Chloroform, bleeding, and warm baths, all had the effect of relaxing the muscles which resisted the return of the hernia (not of relaxing the apertures), and of these chloroform was the most efficient. Of how much service such an effect was, we could better appreciate if we considered the subject of abdominal wounds for a moment. In knife-stabs and other short wounds in the abdomen, it was almost impossible to prevent extrusion of the viscera; while in large incisions, such as were made in ovariotomy, for instance, there was no tendency of this kind, because the great muscles were thereby completely relaxed. In the same manner the muscles were paralyzed by such agents as those mentioned above, and, consequently, their resistance to taxis overcome. The effect of opium was probably much the same, although its action was somewhat more difficult to explain.

Dr. Hamilton at this point wished to make the suggestion that while the patient was under the influence of such remedies, and the abdominal muscles thus relaxed by them, the hernia might actually be withdrawn by violent peristalsis or anti-peristalsis in the intestine. It was well known that peristaltic movements often continued for some time after death, and he himself had seen this demonstrated in several instances in the case of calves. Niemeyer and other observers had noticed a number of invaginations of the intestines at the autopsies of children who had died of hydrocephalus, which had been produced by the violence of *post-mortem* peristaltic movements. Might it not be true that in the same way these peristaltic movements went on under the temporary paralysis produced by chloroform, bleeding, etc., just as in labor uterine contractions continued, and were sometimes increased when the patient was under the influence of an anæsthetic? It seemed reasonable to suppose, therefore, that one way, at least, in which the above agents acted was by putting the abdominal muscles in such a condition that their contractions could not interfere with the continuance or increase of peristalsis.

(To be continued.)

# Obituaries.

## CHARLES MURCHISON, M.D., LL.D., F.R.S., OF LONDON, ENGLAND.

Dr. Murchison died very suddenly from disease of the aortic valves, on the 23d of April last. In him medicine has to lament a man who not only ornamented the profession by a noble and upright character, but who with untiring and conscientious industry, was always adding to medical knowledge.

Dr. Murchison graduated in medicine at Edinburgh in 1851, having, while a student, won many prizes and medals. His career since then has been so eventful with honors to himself, and noteworthy to the profession, from his contributions to its literature, that we can hardly chronicle everything. He finished his education in Italy and Paris, and then returned to Edinburgh for a time. In 1853 he went to India, and was soon appointed Professor of Chemistry in the Bengal Medical College. Returning to England he

became, in 1855, Fellow of the College of Physicians, and later, Demonstrator of Anatomy and Lecturer on Botany at St. Mary's Hospital. During these years he wrote considerably on botanical subjects. In 1856 he began his pathological studies, and although a man who was always careful and exact in his writings, he had soon contributed no less than 311 papers to the London Pathological Society. These were based largely on the pathological collections at St. Mary's, and they added greatly to the prestige of the society and the hospital, as well as to his own reputation.

In 1856 he was appointed assistant physician to King's College Hospital, and also to the London Fever Hospital, his connection with the latter institution resulting in his crowning work on Continued Fevers. In 1860 he became lecturer on pathology at the Middlesex Hospital, and assistant physician at the same place. He was made physician to the London Fever Hospital in 1861.

Resigning this he became physician and sole Lecturer on Medicine at Middlesex Hospital, in 1866. In 1870 he received the degree of LL.D. from Edinburgh University. In 1871 he became Lecturer on Medicine at St. Thomas's Hospital. In 1873 he was appointed Croonian Lecturer of the Royal College of Physicians, in which capacity he delivered his lectures on functional derangements of the liver. He subsequently became President of the Pathological Society, and one of his latest honors was his appointment as physician in ordinary to the Duke and Duchess of Connaught.

During all these years his literary activity was extraordinary. Besides translating Frerichs' "Diseases of the Liver," and other foreign works, he was a frequent contributor to medical journals and the transactions of societies. In 1862 he published his great work on *The Continued Fevers of Great Britain.* In this he first made the unalterable distinctions between typhus and typhoid, and drew the ætiology and symptoms of the continued fevers with such exhaustive clearness, as made him at once the authority above all others on the subject.

We have had space to do little but catalogue a partial list of his achievements and give some indication of the amount of his work. But even this will show the talents and tremendous industry of the man.

For the last nine years of his life he had been aware of a disease of the heart, but had continued his work, and died in the midst of it while attending to a patient.

## THOMAS J. CORSON, M.D.

THOMAS J. CORSON, M.D., died at Trenton, N. J., May 10th, after a long and painful illness, in the fifty-first year of his age. He was a prominent citizen and widely known throughout the State of New Jersey. During his career he held several high positions of trust and honor. He was a member of long standing in the Masonic order, having attained to the thirty-third degree, was High Priest of the Royal Arch Masons and Grand Commander of the Grand Commandery of Knights Templar. At one time he was president of the State Medical Society. It was at his instigation, in the winter of 1878, that the investigation into the management of the State Prison was gone into, he having preferred charges against the attendants for cruelty to the convicts, which at the time created such widespread interest. He was a quiet, unassuming man, and was noted for his sound medical common sense.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from May 4 to May 10, 1879.*

SUTHERLAND, C., Colonel and Surgeon. Granted leave of absence for five months on Surgeon's certificate of disability. S. O. 105, A. G. O., May 3, 1879.

STORROW, S. A., Major and Surgeon. Granted leave of absence for one month. S. O. 38, Dept. of the Platte, May 5, 1879.

BARTHOLF, J. H., Capt. and Asst. Surgeon. Relieved from duty at Alcatraz Island, and assigned to temporary duty as Post Surgeon at San Diego Barracks, Cal.. S. O. 44, Div. of the Pacific and Dept. of California, April 28, 1879.

WINNE, C. K., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort McPherson, and assigned to duty at Fort Washakie, Wyo. T. S. O. 38, C. S., Dept. of the Platte.

WORTHINGTON, J. C., 1st Lieut. and Asst. Surgeon. To report by letter to the Medical Director for special duty. S. O. 50, Dept. of Arizona, April 23, 1879.

BIART, V., 1st Lieut. and Asst. Surgeon. Granted leave of absence for thirty days, with permission to apply for an extension of thirty days, on Surgeon's certificate of disability. S. O. 88, Dept. of the Missouri, May 5, 1879.

RANDOLPH, J. F., Major and Surgeon. Having been found by an Army Retiring Board incapacitated for active service, he is granted leave of absence until further orders, on account of disability, to take effect May 1, 1879. S. O., 108, A. G. O., May 7, 1879.

## Medical Items and News.

**CONTAGIOUS DISEASES — WEEKLY STATEMENT.— Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending May 3, 1879.**

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| May 3, 1879. | 0 | 6 | 191 | 0 | 89 | 22 | 0 | 0 |
| May 10, 1879. | 0 | 3 | 143 | 1 | 46 | 25 | 4 | 0 |

CHICAGO MEDICAL SOCIETY.—At the annual meeting of the Chicago Medical Society, held April 7th, Dr. Edmund Andrews was elected President, and Dr. R. G. Bogue, Vice-President.

A resolution was adopted authorizing the appointment of a committee to memorialize the Mayor-elect, Hon. C. H. Harrison, to place the Department of Health of this city beyond the pale of politics, as is the case now with the Police and Fire Departments, and to retain in his position of Commissioner, Dr. De Wolfe, in the interest of sanitary science and good government. In the vote on the resolution there was not a dissenting voice. Dr. De Wolfe was appointed under a republican administration, while the incoming Mayor is a democrat.

THE AUSTRIAN UNIVERSITIES.—The Austrian government has published a comparative statement of the condition of the universities of the Empire at the periods of the two Paris Expositions, 1867 and 1878.

In 1867 there were in Austria six universities, four complete, viz., Vienna, Prague, Gratz, and Cracovia; and two incomplete, *i. e.*, without a Faculty of Medicine, viz., Innspruck and Lemberg. At present there are seven universities, five of which are complete, Innspruck having received a Medical Faculty in 1869. When the government decided to found a new university, all the nationalities of the Empire sought eagerly for the favor, but Czernovitz was finally chosen as its site. The decree for its establishment is dated September 30, 1875. During the present century, two Austrian universities, that counted their age by centuries, have been abolished, viz., that of Salzburg, which was closed in 1810, after having existed for two centuries, and that of Olmutz, suppressed in 1855, after having seen three centenaries.

The budget of the universities in 1867 was 1,242,088 florins ($621,044). If we take the University of Vienna as an example of the changes brought about in ten years, we find that in 1867 there were 66 regular professors, 31 assistant professors, and 72 tutors (privat docentes), while at the present time the numbers are respectively 88, 44, and 91.

Simple Treatment for Sciatica.—Dr. Ebrard, of Nimes, states that he has for many years treated all his cases of sciatica and neuralgic pains with an improvised electric apparatus, consisting merely of a flat iron and vinegar, two things that will be found in every house. The iron is heated until it is sufficiently hot to vaporize the vinegar, and is then covered with some woollen fabric, which is moistened with vinegar, and the apparatus is applied at once to the painful spot. The application may be repeated two or three times a day. As a rule, the pain disappears in 24 hours, and recovery ensues at once. The rationale of the process is plain: the iron is magnetized by the heat, and, if the acid be then added to it, electricity is produced, and the same effects are obtained as with an electric battery.—*Jour. de Méd., etc., de Bruxelles.*

Examination for F.R.C.S.E.—The questions below were put to candidates for their primary examination for Fellowship at the Royal College of Surgeons of England, November 15th:

1. Describe the dissection required to expose the upper surface of the first rib, and mention in order, from before backward, the several structures in immediate relation with that bone.

2. A transverse section is made through the cranium and its contents, passing through the odontoid process. Mention in order, from above downward, the several structures which would be divided.

3. Describe the development of the vertebral column and mention the form of the vertebral centrum characteristic of each of the primary divisions of the vertebrata.

4. Describe the structure of the supra-renal capsule, and give the evidence which at present exists regarding its function.

Pyriform Swelling of the Larynx in Tuberculosis.—At a recent meeting of the Philadelphia Academy of Natural Sciences, Dr. Seiler said he had been interested in the anatomy of the larynx, and had recently ascertained that very peculiar symptoms were manifested by this organ in the very earliest stages of consumption. An opportunity to investigate this subject was recently offered in the case of an infant which had died of acute tuberculosis. In this case, of which he had made sections of the organ, which he exhibited, the arytenoid cartilages were found to be swollen at one extremity, so as to assume a pear shape. This "pyriform swelling" of these cartilages appeared so early in the course of the disease that by means of it a very early diagnosis might be made and thus much be done to arrest if not cure the trouble.

Leprosy in Spain.—A letter from Madrid informs us that leprosy has made its appearance in several localities in the province of Alicante, and that the authorities, alarmed by the number of cases and of deaths, intend to establish a special lazaret. It is very generally believed that this horrible disease is only met with at the present time in Asia and Africa, but unfortunately this is a mistake. It still exercises its ravages in Europe, especially in Spain, where it has attained dimensions that furnish serious cause for alarm. In the province of Valencia, 116 cases of leprosy, 71 of which proved fatal, were reported last year. Of the 45 survivors, 17 are women. Even the above number, however, is probably below the truth, as the majority of the affected persons use every effort to hide their malady from the official inquisitors and even from their nearest relatives. At Saint-Simat de Valldigna, the inhabitants call leprosy the "mal de Maure," and at Enguerra it is called the "mal de Saint-Lazare." In the provinces of Valencia and Alicante, it manifests itself under two forms: the tubercular, or leprosy of the Greeks, and the vulgar (anæsthetic), or leprosy of the Jews. Cases of recovery are extremely rare. Near Valencia, there has existed for a long time a hospital set apart exclusively for lepers; all who refuse to enter the hospital are isolated and subjected to the most rigorous hygienic rules.

Homœopathic Resolutions.—The Homœopathic Medical Society of the State of New York, at its last annual meeting, adopted the following as supplementary to their resolutions of last year:—"That we clearly and emphatically distinguish between a 'therapeutic law' and the laws of chemistry, physics, and hygiene; and while in the treatment of disease the formula, '*causa sublata tollitur effectus*,' is often to be remembered and used with advantage, yet such laws and such action in no way infringe upon or invalidate the therapeutic law, '*similia similibus curantur*.'

That we have not in the past, nor do we now, yield one tittle of our rights as physicians to use any means or appliances of the general profession to aid in the treatment of our patients (under the homœopathic law), or in the palliation of their suffering through the application of any physical, surgical, chemical or hygienic law, leaving the question of such use to the individual judgment of the practitioner, assured that they will be the least used by those who are the best acquainted with our *materia medica*, and best able to wield its immense *armamentarium*.

"In relation to the dose of the *similimum* proper to be exhibited, we discover that the most brilliant triumphs of homœopathy have been achieved by the use of attenuated medicines; yet, as a matter of fact, we find that even the crude drug in minute doses will exhibit power to become a remedy under our therapeutic law.

"But, as we as yet have not been able to deduce a law to guide us in determining the amount of a drug to be used, or the attenuation to be exhibited in order to meet the demands of any case most accurately, this society, while on the one hand it refuses to join with those who decry attenuated medicines, on the other will not refuse to recognize as brethren those who, governed by their honest convictions, can only exhibit crude medicines or the lowest attenuation in the treatment of the sick."—*Evening Post.*

# Original Lectures.

## SCLEROSIS OF THE POSTERIOR AND THE LATERAL COLUMNS OF THE SPINAL CORD.

A Clinical Lecture Delivered at Charity Hospital.

By A. McLANE HAMILTON, M.D.,

VISITING PHYSICIAN TO THE HOSPITAL FOR EPILEPTICS AND PARALYTICS.

(Reported for The Medical Record.)

### Lecture I.

Gentlemen:—I propose to-day to present a number of patients in the cases of whom are illustrated two very interesting diseases: 1st, that commonly known as locomotor ataxia; and, 2d, primary sclerosis of the lateral columns of the spinal cord, or spasmodic spinal paralysis.

I will first present three patients who illustrate most perfectly the three stages of locomotor ataxia.

Case I.—This man, æt. 57, and married, has suffered from the disease for two years. Before the appearance of any symptoms he had for a long time indulged freely in venereal pleasures, and was the subject of repeated priapism and nocturnal emissions, the erections occurring, as a rule, without any special erotic thoughts or stimuli.

He first complained of shooting pains in the back and limbs, numbness of the lower extremities, and a feeling of constriction about the waist and ankles, but no headache. Shortly after he noticed that he had difficulty in walking, and found that he had but poor control over his feet, and it soon became difficult for him to walk in the dark; and this difficulty in walking has steadily increased.

Six months ago the movements of the upper extremities first began to be ataxic.

The patient, as you see, is anæmic, badly nourished, and presents a cachectic appearance. He rises from his chair unassisted, but cannot stand with his eyes closed. His gait is ataxic, but there is no paralysis whatever, nor atrophy, and when I endeavor to hold his foot, his leg and thigh being flexed, while he tries to extend them, you will see I have great difficulty in doing so. There is marked anæsthesia. The anæsthesia is of the tactile variety, for he has no difficulty whatever in perceiving changes in temperature, but cannot tell anything about the location of the point of the æsthesiometer, or the nature of an object which is brought in contact with his skin when his eyes are closed. He has slight constipation and urinary trouble. There are also shooting pains in the extremities, with marked loss of co-ordination.

As he sits with his legs crossed, I will give him a sharp blow upon the ligamentum patellæ, and it is found that there is a sudden extension of the corresponding leg. This phenomenon can be observed in both legs. It has been said by Westphal and Erb that the absence of this phenomenon is pathognomonic of the early stage of the disease, but the records of several recent observers have led us to regard it as a symptom which possesses only doubtful value. This has been met with the statement that in cases where it was present there was an extensive transverse myelitis, but in the cases I have seen I am sure no such condition of affairs has existed. Of the three patients before you it will be found that in two this property of the tendons is entirely absent, while in the third, the patient before you, it appears to be exaggerated. In one of these patients it will be seen that only one muscle is not involved, namely, the vastus internus. In that respect it illustrates Westphal's views, he having called attention to the exemption of this muscle. It is probable that the most important of the early symptoms of the first stage are those of a painful character. The first symptom is usually a sense of fatigue, which has associated with it pains of two varieties: 1st. Those which shoot down the back, the thighs, and the inner surface of the legs. Sometimes these pains proceed from below upward. They are the so called lightning pains, because of their violence and brief neuralgic character, and their intensity. 2d. Those which consist of a species of exquisite superficial hyperæsthesia, sometimes occupying a well defined space of variable extent. These spaces may be found at almost any part of the lower extremities.

Another early sensory symptom, which has been observed in the cases before you, in fact, is present in about two-thirds of all the cases, is pain in the back. After this, in constancy of appearance, comes the "constriction-band," a feeling which the patient compares to the sense of tightening which would be produced by a cord drawn about the body. This, it may be remarked, is not peculiar to locomotor ataxia, as has been stated by some authors, for it may also be a symptom of myelitis; and I have often seen it in connection with cases of spinal irritation, but in the latter disease it is apt to be situated higher up, and associated with disturbed respiration, while the constriction-band of locomotor ataxia is usually about the waist, or just below the border of the ribs. In the first stage there are other irregular sensory disturbances, such as visceral pains, joint pains, which are often mistaken by patients for subacute rheumatism, and certain affections of the eyes, notably of the ocular muscles, producing diplopia and strabismus. The duration of the first stage is variable. It may last for two or three years, or, as has been known in rare instances, it may extend for ten or fifteen years.

The commencement of the second stage is symptomatized by various disturbances of motility which you see markedly displayed in the patients exhibited to-day. The disturbance depends chiefly upon loss of muscular sense, connected very closely with the anæsthesia which occurs at the end of the first stage. It will be noticed that the gait of these patients is in no way suggestive of paralysis. It is rather the reverse, for the feet are planted widely apart, and the heel first touches the ground, while, as you know, the gait of the paraplegic patient is characterized, by dragging of the toe and inner side of the foot, and scraping the floor; while in the disease I will presently describe—lateral sclerosis—the toes drag over the floor; but there is a species of talipes equinus and great rigidity.

It will be found that in many patients the first indications of the existence of the disease is a worn condition of the back part of the heel of the shoe. The movements, as well as those of the upper extremities indicating the extension of the disease upward, or the formation of new foci of sclerosis, have recently been described by Onimus as an irregular expenditure of ill-directed force, a certain amount of the muscular power being expended in certain parts of an action when it is not needed. The will being actively exerted, the apparatus of execution and control are defective—and we may compare the individual to an engine with a broken governor or cut-off.

Later on, there is a species of paralysis which evidences extension of the disease into other parts of the cord. This is illustrated in the patient who presents the symptoms of the third stage of the disease.

When the disease has reached the second stage it will be noticed that there is a decided increase in the disturbances in walking, and the patient will be unable to perform even movements of the simplest kind. It is especially difficult for him to turn, as for retracing his steps. In a case which I have under observation in private practice, the patient becomes so much demoralized when crossing the street, by the approach of a wagon driven rapidly, that his legs refuse to support him and he falls to the ground.

In all these patients the voluntary control of the muscles is so imperfect that a fright of any kind will make them utterly helpless. During the first stage, or even before any sensory symptoms, there is usually developed a lesion at the fundus oculi. With the ophthalmoscope the optic nerve expansion will be found to be the seat of white atrophy.

This is one of the most important symptoms of the fully developed disease, although it is, as I have said, an early origin, and is well illustrated in the second patient presented. In the third case we have a picture presented which cannot be mistaken.

This woman suffers from decided optic nerve atrophy, and her pupils are contracted. She has the ataxic gait in a marked degree, and tactile sensibility is lost. In addition to other symptoms she presents one which is quite characteristic of the advanced stage of the disease, namely, pulmonary trouble, which has lasted for several years. In a large number of the cases, in fact, nearly all I have seen in which death took place, the termination is preceded by pulmonary tuberculosis, and I am convinced that in this disease, as well as in progressive muscular atrophy, the trophic cells of the anterior columns, the respiratory centres, and the roots of the intercostal nerves become involved, and in nearly all cases there is shallow breathing and weak action of the thoracic wall. With the exception of the ocular symptoms, which have already been mentioned, it is rare that any cerebral symptoms are manifested except it may be vertigo, which is sometimes present at the beginning of the disease.

In the case of the woman before you, there has been an upward extension of the disease, and probably brain involvement, as symptomatized by epileptoid attacks, which may be always safely considered as evidence of multiple lesion.

In these cases there is more or less mental disturbance. In fact, according to Obersteiner, and it has been my own experience also, a certain amount of mental trouble, sometimes only slight, perhaps scarcely recognizable, occurs in almost every patient of this kind. In the beginning, the temper of the person is very apt to undergo decided changes. She becomes morose and irritable, and is very liable to suffer from fits of mental depression.'

This patient presents a discoloration in patches of the skin, which are suggestive of the existence of old herpes.

Skin lesions, whether herpes or pemphigus, have been shown by Charcot to be very frequently associated with locomotor ataxia, and I am inclined to think their value in connection with other spinal disorders is frequently overlooked. I have patients at present under treatment who, as soon as their spinal symptoms become at all aggravated, are subject to attacks, not only of herpes, but in one case there is a plentiful crop of acne upon the shoulders, while the vertebral spines in the same neighborhood are quite tender upon pressure, and modifications in the course of the disease are expressed by a change in the eruption. I am unable, to-day, to show you a case which presents the joint enlargements sometimes seen well marked in the latter stages of this disease. It has been found, however, that various bone changes, such as atrophy, are not rare, and that the bones of these patients are very easily fractured. According to Charcot and Erb, joint enlargements begin at a very early stage of the disease. Muscular atrophy I need not tell you is a late complication, and is indicative of extension of the disease into the anterior parts of the cord. You will remember, then, that the disease has three stages; the earliest symptoms being those of pain in the back and the extremities, the latter of a shooting character, and often visceral colicky pain, sometimes with vomiting; that there is anæsthesia, especially of the plantar surfaces; that reflex action is, sooner or later, abolished, though to electricity it is increased; that the patients have a peculiar objective symptom, a sensation as though standing upon fur or some soft substance; that there is no loss of motor power whatever; that often the *tendon-reflex* is abolished; that there are changes at the expansion of the optic nerve; that the patient gets a peculiar jerking walk, so that he is ultimately helpless, and takes to his bed; that he cannot stand with his eyes closed; that there are symptoms of general physical weakness; that obstinate constipation and bladder trouble are common in all stages; and that the termination in most cases is by pulmonary disease, cystitis, extension to the medulla, general exhaustion following bedsores, or else the patient is carried off by some other disease. Although the term "progressive" has been used by some authors, it by no means follows that the disease does not have periods of remission. In the case of the woman before you, one year ago she was bed-ridden, while to-day she is able to walk with a cane. How long this condition of apparent improvement will last, I am unable to say, but such periods, of several months' duration, are by no means rare.

*Etiology.*—As to the cause of the disease in these patients, but little is known. In the first case, there is no history of a cause unless it may have been excessive venery, which I feel convinced has been too frequently assigned to an important place in the etiology of the affection. It is doubtless true that exposure to cold and dampness has more to do with the development of spinal sclerosis than any other influence perhaps, excepting alcoholism. Several of my hospital patients are sailors and laboring men, who are exposed in this manner.

*Prognosis.*—With reference to prognosis there is but little to be said. Recovery is exceedingly doubtful. The reported cures have probably been among patients in whom either diagnosis has not been made, or who have suffered from the disease in its early stages.

*Treatment.*—In the early stages of the disease I have used ergot with apparent good results, and I believe it to be more valuable in the treatment of inflammatory conditions of the nervous system than any drug at our command.

Later in the disease, a variety of remedies have been suggested, none of which possess any special efficacy, with the exception, perhaps, of phosphorus and cod-liver oil, the descending galvanic current and spinal cauterization.

For the relief of the pains, hypodermic injections of atropia, morphia, or muscarine, act most favorably.

For the same purpose the galvanic current may be used, the positive pole being placed over the painful point in the back, if such a point exists.

Warm sulphur baths, of a temperature not exceeding 90° F., are useful adjuvants.

They can be conveniently made by simply dissolving an ounce or so of sulphuret of potassium in water.

If, while treatment is being applied, certain symptoms are modified, do not be too sanguine with reference to ultimate results, for, in all probability, one of the remissions already alluded to has taken place. In some cases it is well to send the patient at once to a warm climate, for dampness and cold may greatly aggravate the sensory symptoms.

### PRIMARY SCLEROSIS OF THE LATERAL COLUMNS OF THE SPINAL CORD.

The next patient brought before you is suffering from a very rare and interesting disease, known as primary sclerosis of the lateral columns of the spinal cord. You will find, by reference to your anatomy and the special works upon nervous histology, that the tract lying between the posterior and anterior nerve-roots contains three subdivisions. Lesions involving two of these subdivisions have been described by Tuerck, Fleischig, and others. The form of sclerosis which this patient undoubtedly suffers from invades that part of the lateral column lying in immediate contact with the anterior border of the posterior nerve-roots, and extends to the periphery of the cord. The lesion more commonly found is a secondary degeneration of the lateral columns, occupying a small territory in nearly the same situation; but the lesion does not extend to the periphery. It is separated from the cortex by the direct cerebellar columns.

Sclerosis of the lateral columns of the cord is characterized by entire absence of any sensory symptoms, which are so strikingly manifested in sclerosis of the posterior columns, and illustrated by the three cases just shown.

The three marked symptoms of lateral sclerosis are loss of power, spastic muscular contractions, and exaggeration of the reflex activity of the tendons. As negative symptoms there is integrity of sensation, no atrophy, and no bladder or rectal trouble.

The patient before you, J. V. P., æt. 28 years, and a native of the United States, gives no history of hereditary nervous disease. His family seem to have been healthy. About eight years ago, after a great deal of dissipation, he first noticed that he very easily became fatigued; that his legs felt heavy, and, if he persisted in walking, they grew stiff. He also staggered, stubbed his toes, and sometimes fell. He had good control over his bladder and rectum, and sensation was not affected, except that he occasionally experienced slight formication, but never anæsthesia. There were no disorders of co-ordination, no cerebral trouble, and no sharp pains in the extremities. He however, gradually became helpless, and finally was obliged to use crutches. There was a strong contraction of the tendo Achillis, so that the ball of the toes touched the ground when walking; in other words, both feet were in the condition of talipes equinus, the toes scraping the ground at every step, while the feet became entangled with each other, in consequence of a forcible contraction or spasm of the adductor muscles of the thighs.

It will be noticed that his general condition is good. Although there is no vertebral disease present, you will observe, as he sits on the stool, that his body is permanently bowed to such an extent that a large transverse fold is made in the abdominal tissues. This has been alluded to by Charcot as a common symptom in these cases. His legs are stiffly extended, he is unable to lift his heels more than a few inches from the floor, and he is utterly unable to rise from the sitting posture or to walk. As I strike the tendo Achillis, it will be noticed that the tendon reflex is present to a marked degree. In these cases, however, this symptom is variable, and sometimes a very slight excitation will cause violent movements. In other cases the condition of reflex excitability is so great that when the patient stamps upon the floor the entire limb shakes violently. You will also notice that, when I pass my finger ever so lightly over the abdomen, there is a convulsive upheaving of the muscles, and this I regard as of great importance as a diagnostic sign.

There is no atrophy of the muscles except what has followed disuse of the limbs. The atrophy which is present is general and not such as is found in paralytic atrophic diseases, where separate groups of muscles are affected, while others retain their normal contour.

The arms, you will notice, are not affected, and there is no cranial nerve paralysis whatever.

But very little is known with reference to this disease, for, altogether, less than forty cases have been reported. Men seem to be chiefly affected. In but one of the eighteen cases reported by Erb the upper extremities were affected by the disease. Like ataxia, it depends upon a decidedly slow process of degeneration, and most of the patients already observed have suffered from the disease for several years. So far no autopsy has been made which shows uncomplicated disease of the lateral columns. It is hardly fair to argue, as some have, that primary degeneration of the lateral columns is an unlikely lesion. It is possible, as we all know, for a certain group of spastic symptoms to be connected with certain lesions of the gray matter, but in every one of the cases brought forward the symptoms were by no means classical and should be thrown out of the question. I do not see why primary degeneration of the lateral columns, or tabes spasmodica, is not as likely to exist as a pathological entity as posterior spinal sclerosis or locomotor ataxia.

*Etiology.*—Very little is known with reference to the etiology of this disease. Betous reports cases which he believed to have been produced by metallic poisoning. Berger reports others occurring in patients of the same nationality and residing in the same region of country, and has made the inference that the disease is possibly due to some special climatic influence. These observations, however, have but little weight, for such cases have been observed in all parts of the world.

*Diagnosis.*—With reference to diagnosis, there is, at the present time, but little occasion for mistake. At first the disease was confounded with the form of sclerosis affecting both the anterior and lateral columns, and described by Charcot under the name amyotrophic spinal paralysis, but its distinct character was afterward recognized. Certain forms of hysteria with contractures may closely simulate the disease in question, but the violence of the symptoms and the sex of the patient will militate strongly against the chances of mistake.

*Treatment.*—With reference to treatment, I have only to repeat what has already been said in connection with the cases of locomotor ataxia. At my next lecture I will show you cases of secondary degeneration in the spinal cord, a disease which, in certain respects, resembles very strongly the case just presented.

# Original Communications.

## LARYNGEAL PHTHISIS.

By F. H. BOSWORTH, M.D.,

LECTURER ON DISEASES OF THE THROAT AT THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

(Read before the County Medical Society, Monday, March 24, 1879.)

PART II.

(Concluded from No. 20, p. 463.)

THE diseased parts in laryngeal phthisis are extremely irritable and exquisitely sensitive, and the object should always be kept in view of accomplishing the treatment with as little irritation as possible. If then our medication can be deposited on the parts, without the instrument touching them by which they are conveyed, it is an end to be desired. The spray and powder insufflator accomplish this; the brush, the sponge, and the probe necessarily touch the diseased parts and are liable to do harm; the writer long ago abandoned their use from this consideration.

In a recently published work by Lennox Brown, of London, the use of sprays for making laryngeal application is condemned on the very surprising ground that they are unphysiological—an objection which unquestionably holds good, not only in regard to sprays, but also in regard to a large proportion of the procedures to which physicians are compelled to resort. He recommends the brush as preferable; one certainly fails to find any physiological precedent or justification for the introduction of the brush into the larynx where the introduction of fluids in a state of finely divided atomization is condemned. A pretty large experience in the use of sprays has so far convinced the writer of their superior efficacy over all other methods of applying medicated fluids to the upper air-passages, that he confines himself largely to their use; and in laryngeal phthisis, above all other diseases of the upper air-passages, the conviction is held that no other method is so little irritating, is so well tolerated, or is so efficacious. Pursuing the plan of treatment indicated above, it is the almost invariable rule that the applications are not only well, but gratefully borne, and followed by immediate relief to the subjective symptoms.

The above plan of treatment is for the stage of ulceration; the earlier stages of the disease are treated in the same way, with the omission of the use of iodoform, which, as stated above, is only used for its specific action in ulceration.

Inhalations, as a rule, are useless or of very limited efficacy in laryngeal phthisis. The volatile remedies which may be applied in this manner exercise so little of curative or controlling influence in this disease that their use is a waste of time; those remedies which are of most benefit by their local action cannot be volatilized. Lupulin, opium, cannabis indica, conium, and other sedatives are of some benefit in allaying pain, but it is limited. Benzoin, turpentine, creasote, and iodine, are, as a rule, too irritating.

Among the instruments in most frequent use in the treatment of laryngeal phthisis and other diseases of the upper air-passages, is the steam atomizer; this is an ingenious and attractive little instrument, but nevertheless an instrument of mischief. Its use is of undoubted benefit in many cases of acute inflammation of the fauces and neighboring parts; but it is extremely doubtful if it is of any service in the chronic forms of disease; it encourages and promotes those features of catarrhal inflammation which it is the effort of the physician to control, viz., swelling, congestion, relaxation, distention of the blood-vessels, and hypersecretion. It is undoubtedly the hot steam which is the mischief maker, and it more than counterbalances the good that may be accomplished by the medicated fluid which it is used to atomize.

It is often desirable that the patient should have some method of using medicated solutions during the intervals of treatment; and for this purpose there is nothing better than the little Cologne atomizers, such as are found on many toilet-tables. The best of these is the Delano atomizer, with the long tube. It is sold in most drug stores. The fluid for use may be the carbolized alkaline solution given as a cleansing solution. To this may be added a sedative if indicated, such as a drachm of Magendie's solution to the ounce.

In the earlier stages of the treatment it is desirable that the patient be seen generally as often as every second day; but that should be governed by the duration of the relief which is given at each sitting. At the commencement it will often be necessary to give daily treatment; but if the progress of the case be favorable it will soon be necessary to repeat the treatment but once a week, or even in two weeks.

These measures failing to relieve or arrest the progress of the disease, the question of tracheotomy arises as a remedial measure in the earlier stages of the disease, before œdema with dyspnœa have occurred, which, of course, imperatively demand the operation.

The consideration which operates in favor of tracheotomy is the entire rest thereby secured to the larynx from the movements of phonation and respiration, thus putting the parts in the most favorable condition to get well. The consideration which operates against tracheotomy is the total ablation of a large and important part of the upper air-passages, by which the inspired air is rendered warmer, moister, and cleaner before it reaches the lungs. This consideration should never be lost sight of; and if the objection can be obviated by proper measures, which will occur to any one, it would seem that we have a resource which might more frequently be adopted. The operation is a simple one, and is rarely attended with any bad results due to the operation itself—such as shock, excessive hemorrhage, etc.

In Case II. the operation was performed after six months of rather irregular attendance at the clinic without much relief. She lived four months with comparative freedom from the painful features of the later stages of laryngeal phthisis. The disease seemed to be arrested, and she died of the pulmonary disease.

In Case XXVIII. the patient was a workman in a wire factory, his especial business being to temper the wire, an occupation which compelled him to breathe the irritating vapor from the tempering-pot. He asserted that all the workmen in the room with him suffered from throat-disease and catarrh.

The direct cause of his laryngeal phthisis was his occupation. His health becoming impaired, he developed tuberculosis, being in the first stage only when first seen, though the larynx was in the advanced stage of the epiglottic form of laryngeal phthisis. He came to the clinic December 21, 1877, and was treated for three weeks with relief, when he disappeared. He was seen again about the middle of February, and found in a most deplorable state; his food was regurgitated, breathing and talking painful, swallowing almost impossible for food or drink, sleep broken and restless

and cough almost incessant. There was no dyspnœa. Tracheotomy was done March 7th, and, although he was in an extremely weak condition, the operation was attended with no perceptible shock. He soon swallowed nourishment without pain, and fell into a quiet sleep, and passed his first comfortable night for two weeks. He lived eight days with comfort and comparative freedom from pain, and died on the ninth day of an attack of acute miliary tuberculosis, which carried him off in less than twenty-four hours. This attack was possibly brought on by the introduction of the tube, his surrounding being such as to interfere very much with the faithful carrying out of the directions as to the temperature of the room, moisture, attention to the tube, etc.

Of course remedies should be given to correct the general condition—cod-liver oil, iron, quinia, etc.—but it is not the province of this paper to discuss general medication.

A brief résumé is given of the cases on which these observations are based.

Case I.—J. W., æt. 27, tinsmith, came to me September 1, 1877. Father died of phthisis. Has had more or less throat trouble for three years; has had bad cough for four months, with loss of flesh; has had severe pain in throat, with aggravation of cough and painful deglutition for two months. Lungs showed deposits and softening at each apex. Larynx: ulceration of true and false cords and commissure; epiglottis not involved. Under treatment four months; ulcer entirely healed; painful subjective symptom entirely relieved. Remaining chronic laryngeal catarrh.

Case II.—A. Z, æt. 18, single, seamstress, came to me September 4, 1877. Family history good. Is well nourished and in apparent good health, but for two years has had throat trouble, hoarseness, and irritable cough; lungs healthy. Larynx shows chronic laryngeal catarrh, with the appearances described as the second stage of laryngeal phthisis, viz., thickening of the commissure and arytenoid, with gray infiltration on the laryngeal face of the inter-arytenoid fold. She developed extensive ulcerations, and grew worse gradually, and on March 1, 1878, tracheotomy was performed to relieve subjective symptoms, followed by marked improvement in symptoms, but she died of catarrhal phthisis in June, 1878.

Case III.—M. G., New York, æt. 32; painter. Family history good. Came to me September 10, 1877, with a history of impaired health, with cough of two years' duration. I found him to be suffering from chronic catarrhal pneumonia of the right lower lobe, and also from Bright's disease. While under treatment he developed extensive ulceration of the laryngeal mucous membrane, by the different stages described, resulting in considerable loss of tissue, and attended with the usual subjective symptoms. The disease progressed unfavorably under the plan of treatment adopted, which consisted of the application of strong solutions of nitrate of silver, etc.; but when the milder plan described was begun he commenced to improve, and at the end of six months was completely cured. Died of acute œdema glottidis from Bright's disease.

Case IV.—M. K., Ireland, æt. 40; foundryman. Family history good. Came to me November 10, 1877, with the history of a cough and progressive loss of flesh lasting for six months, and of serious throat trouble, with pain and distress in swallowing, for three months. There were deposits at the left apex. Larynx showed ulceration, involving arytenoid commissure and ventricular band; epiglottis not affected. He was under treatment for two months, during which time the improvement was marked and most satisfactory, when he ceased his attendance at the clinic.

Case V.—Thos. Conway, Ireland, æt. 46; coachman. Two brothers died of consumption. Came to me in January, 1878; spent much time in the stable, breathing the ammoniacal fumes from the stable-yard, and was conscious of its irritating his throat more or less. Six months before I saw him he caught a severe cold, and commenced to cough and suffer with painful deglutition. When I saw him he had deposits in both lungs, and the larynx was in the ulcerative stage of laryngeal phthisis. Epiglottis not involved. Under treatment he was relieved somewhat, but his attendance was irregular and he finally disappeared.

Case VI.—G. C., New York, æt. 22; morocco factory. Family history good. While suffering from malaria in July, 1877, caught a severe cold, which was followed by cough and pain in chest; lost flesh and became very weak. In December commenced to suffer very much from distress in his throat, with pain on swallowing. In January came to me in a condition of great emaciation with an almost constant cough. Weight 98 pounds, his usual weight being 135. The lungs showed catarrhal pneumonia—right lower lobe; the larynx was in the stage of fully-developed laryngeal phthisis, the ulceration involving the true and false cords with the arytenoids and epiglottis, which was very much thickened. At the end of nine months' treatment the ulcerations were entirely healed. The patient increased from 98 lbs. to his normal weight again, and is virtually cured; the lung trouble has resolved; the cough has left him; there remains in the larynx the cicatrices of the old ulcers, with the little papillomatous growths which are so often found in laryngeal phthisis.

Case VII.—M. K. H., Ireland, æt. 28. Family history good. Came to me January 12, 1878, with a history of severe cough for three months, and for one month pain and difficulty in deglutition, with regurgitation of food. Lungs showed deposit at left apex, with a few moist râles. Larynx showed third stage of laryngeal phthisis, the epiglottis being involved in the ulcerative process. Under treatment improved slowly, but surely, each sitting giving marked relief. Ceased coming after two months' attendance.

Case VIII.—John Coffey, Ireland, æt. 37; wheelwright. Family history good. Came to me January 15, 1878, with a history of cough extending back for two years, and of troublesome throat symptoms of four months' standing. Examination showed chronic catarrhal pneumonia of the right lower lobe of the lungs, while the larynx showed infiltration of the mucous membrane of the right false cord, extending to the commissure and aryepiglottic fold, with small points of ulceration. Under treatment six months, with the result of entirely curing the ulceration, there remaining simply a moderate degree of chronic catarrhal laryngitis.

Case IX.—Philip Bolger, Ireland, æt. 31; moulder. One brother died of consumption. Came to me with history of cough, with loss of flesh for two years; for two months has had serious trouble with his throat. Examination shows deposit of tubercle at each apex; softening and extensive cavities. Larynx in third stage of laryngeal phthisis, the ulcer involving false chord of right side and arytenoid commissure, with considerable thickening and infiltration of the parts. At the end of six months was entirely cured of the ulceration, and ceased coming. He died during the summer from a diarrhœa, with no return of any throat symptoms.

Case X.—Mary Miles, Ireland, æt. 37; widow. Fam-

ily history good. Came to me February 1, 1878, with history of cough and loss of flesh of eighteen months' standing; for three months had considerable trouble with the throat, which was gradually growing worse. Examination of lungs showed cavities in left apex, with deposit at right side. Larynx showed arytenoids, commissure, and aryepiglottic folds swollen and infiltrated with ulceration involving right ventricular band and true cord. Was under treatment for five months, and was entirely cured. Died August 8th, with no return of throat symptoms.

CASE XI.—Kate Ward, Ireland, æt. 33; married. Family history good. Came to me November 1, 1877, with a history of cough and loss of flesh dating back two years, while for six months she has been suffering more or less with the throat, and getting worse of late. Examination of lungs shows deposit at each apex, with softening on left side, and cavities. Suffering very much from the pain and distress in eating and drinking. Larynx showed thickening and infiltration, involving the arytenoids, commissure, aryepiglottic fold, and the epiglottis. Small points of ulceration on false chord and on crest of epiglottis. Under treatment nine months. Entirely cured of laryngeal phthisis; remains chronic laryngeal catarrh.

CASE XII.—Thos. McCaffray, Ireland, æt. 41; maltster. Family history good. Came to me March 1, 1878, with history of lung trouble, as shown by cough, and loss of flesh of seven months' standing, and of throat symptoms of two months' duration. Examination of lungs showed deposit at left apex, with commencing softening. Examination of larynx showed second stage of laryngeal phthisis, not the fully developed ulceration, but gray thickening, involving arytenoids, commissure, and false chord. Under treatment four months. Entire relief of subjective symptom, and arrest of the ulcerative process; a mild laryngeal catarrh remaining.

CASE XIII.—H. Higgin, Ireland, æt. 39; porter. Mother died of phthisis. Came to me April 18, 1878, with the history of a hacking cough and irritable throat of two years' duration. Of late considerable pain and difficulty in deglutition; general condition bad. Examination of lungs failed to detect any trouble. Examination of larynx showed infiltrated condition of arytenoids, commissure, and ventricular bands, with small ulceration on left band, extending to arytenoid. Under treatment eight months. Ulceration entirely healed, and all subjective symptoms relieved; mild laryngeal catarrh remaining.

CASE XIV.—Andrew Patson, Ireland, æt. 28; plasterer. Father and two sisters died of phthisis. Came to me May 8, 1878, with the history of lung trouble dating back three and a half years, and serious throat trouble for two months. Examination of lungs showed cavities in each lung. Examination of larynx showed the whole of the upper larynx involved in the ulcerative process, the epiglottis being much swollen; the subjective symptoms were of a very distressing character. The treatment gave considerable relief, and at one time he was quite free from pain referable to the throat. The lung disease progressing, he died October 15th.

CASE XV.—Amelia Bryen, New York, æt. 20; single. Family history good. Came to me June 20, 1878, with history of cough of two years' duration, and throat symptoms of six months' standing, and, of late, very painful. Examination of lungs showed deposit at left apex, and commencing softening. Larynx: ulcerative process involving largely the whole lining membrane of the organ, the epiglottis being thickened and deformed. Under treatment there was some relief and apparent improvement for a time, but it was not progressive. She ceased attendance.

CASE XVI.—John Allen, New York, æt. 31; broker's clerk. Family history good. Came to me July 6, 1878. For eight years has had more or less cough; three years ago severe hemorrhage, which has recurred several times since. For a month has been suffering with his throat; deglutition painful and difficult. Examination showed deposit at left apex; larynx showed swollen condition of parts, with ulceration of left arytenoid, anterior face: the whole membrane coated with slimy and unhealthy looking mucus and muco-pus. Under regular treatment for two months with entire relief; since then comes in about once a month for treatment as his laryngeal catarrh becomes worse.

CASE XVII.—Frank Langly, Pennsylvania, æt. 37; actor. Father, mother, and two brothers died of consumption. Came to me July 1, 1878. Had had lung trouble for a year, with more or less throat trouble for six months. Examination showed large cavities in each lung, with the larynx in the second stage of laryngeal phthisis, the parts being considerably thickened and infiltrated, though no fully developed ulceration. Under treatment he experienced almost entire relief from his painful throat symptom, though there remained considerable laryngeal catarrh.

CASE XVIII.—Wm. Singleton, New York, æt. 29; shoemaker. One brother died of phthisis. Came to me in July, 1878. Lung symptom dating back three months, and throat trouble only one month. Examination shows deposit, with a few moist clicking râles at left apex, and the larynx in the second stage of laryngeal phthisis—the stage of infiltration. His attendance at the clinic was very irregular, though each sitting seemed to give relief.

CASE XIX.—H. F., New York, æt. 31; clerk. Family history good. Had syphilis eight years ago, for eighteen months before cured. Has had more or less throat trouble for fifteen months, also a cough with expectoration; for two months throat symptoms worse. Came to me August 1, 1878. Examination shows deposit at apex of left lung, with some moist râles. Larynx in third stage of laryngeal phthisis. Epiglottis not involved. His improvement was very marked for a month, and then the lung symptoms becoming more aggravated, his progress was not favorable, and he finally ceased attendance.

CASE XX.—Mary Moran, New York, æt. 22; single; teacher. Mother died of consumption. Came to me August 16, 1878, with history of cough of two years' duration; with loss of flesh; with throat symptoms of five months' duration. Examination showed phthisis, first stage, at left apex, and the larynx in the second stage of laryngeal phthisis, the infiltration being on commissure and left false cord. Her attendance at the clinic was very irregular, and her general condition was extremely unfavorable. She was given little relief.

CASE XXI.—James Welch, New York, æt. 23; clerk. Family history good. Came to me August 19, 1878. For five months has had a bad cough; losing flesh; has night-sweats, etc. For one month has suffered very severely with the throat. Deglutition extremely painful and cough almost constant. Lungs: deposit at left apex, with moist râles. Larynx: arytenoids and commissures very greatly swollen, and the mucous membrane somewhat œdematous; the remainder of the lining membrane of the larynx being in a state of mild catarrhal inflammation. Attendance at clinic extremely irregular, for while each visit afforded him great relief, he would remain away two and three

weeks, and the disease progressed, involving the epiglottis and other parts. Not much improved.

CASE XXII.—Lizzie Juval, New York, æt. 21; single; saleswoman. Mother and sister died of consumption. Came to me August 16, 1878. More or less hacking cough for two years, though the general health has been good. For two months has been coughing badly; has slight hemorrhage; losing flesh; night-sweats; of late the throat has been giving much annoyance, deglutition being quite painful. Examination shows deposit at left apex, with a few moist râles, while the larynx is in the second stage of laryngeal phthisis, the gray infiltration being on the face of the commissure, and extending to left ventricular band. Under treatment for two months the larynx cleared up, and there remains but a slight laryngeal catarrh, which is seen occasionally. Lung symptoms become latent, which I attribute to the local treatment.

CASE XXIII.—John Cahill, Ireland, æt. 28; shoecutter. One sister died of consumption. Came to me August 23d. For eight months, he said, he had been coughing, losing flesh, and having night-sweats. For three years has considered his lungs weak; for six months has had more or less throat trouble, which has been very painful for six weeks. Examination of lungs shows cavities in left upper lobe, with deposit in right side. Larynx in the third stage of laryngeal phthisis, the ulcerative process having extended to the epiglottis, which is markedly thickened. The case was a most pitiable one, and the suffering very great. Under treatment about three months, with relief, which was marked at times, but he gradually succumbed to the pulmonary trouble, dying on November 10th.

CASE XXIV.—Mrs. James A. Parker, Connecticut, æt. 38; married. Family history good. Came to me Oct. 6, 1878. During the winter of 1877 she had an attack of what her physician called broncho-pneumonia, from which she made but a poor recovery, her cough continuing, with the expectoration of frothy mucus. Six months before I saw her she commenced to suffer greatly with her throat, deglutition being extremely painful. She had been treated by the application of very strong solution of nitrate of silver, and when I first saw her was in a most deplorable state. The first application of the treatment described in the paper gave her the first absolute comfort and freedom from pain she had experienced in months. The progress of the case was very favorable until an attack of acute miliary tuberculosis caused her death early in December.

CASE XXV.—Wm. Daly, Ireland, æt. 33; clerk. Two brothers died of phthisis. Came to me October 15, 1878. Has had lung trouble for three years, and serious and painful trouble in the throat for four months. Examination shows cavities at left apex, and deposit, with softening, at right apex. The larynx in third stage of laryngeal phthisis, the epiglottis being involved in the ulcerative process. The treatment gave temporary relief only; attendance irregular at clinic; died this spring.

CASE XXVI.—Annie Forrester, Scotland, æt. 34; married. Family history good. Came to me Oct. 20, 1878. For three months has had cough, with expectoration, losing flesh, and having night-sweats. For three weeks has had painful deglutition, with constant sense of irritation. Examination shows deposit at left apex of lungs, with moist râles, localized. The larynx in the first stage of laryngeal phthisis, with slight grayish infiltration on laryngeal face of commissure. Under treatment the subjective symptoms were entirely relieved and the appearance markedly improved.

CASE XXVII.—John Halliday, Ireland, æt. 35; carpenter. Family history good. Came to me December 28. For two years had cough, with free expectoration, and occasional attacks of hæmoptysis; has lost flesh, and has had night-sweats. For two months has had more or less throat trouble, irritable condition, with some pain in swallowing. Examination of lungs shows dulness at left apex, with moist râles. Larynx shows first stage of thickening of commissure and club-shaped condition of arytenoids. Under treatment subjective symptoms improved, and for a month he has been free from any throat trouble. Still under observation.

CASE XXVIII.—James Gibney, New York, æt. 35; worker in wire factory. Family history good. Is a wire-temperer, an occupation compelling him to inhale the irritating fumes of the tempering-vat. As the result of this he has for several years had throat trouble. Came to me December 21, 1878, with a history of severe trouble in his throat for three months, with severe cough; for two weeks has had pain in swallowing. Examination of lungs showed dulness at left apex, with broncho-vesicular respiration, but very few moist râles, and the larynx in the third stage of laryngeal phthisis, with the epiglottis involved. Each sitting of treatment gave him much relief, but his general condition failing he was unable to attend the clinic, and all his symptoms growing so much worse, that on March 7th I performed tracheotomy to relieve the pain from which he suffered so much, being unable to eat, drink, or sleep. The operation gave immediate relief to the larynx, and his improvement was most satisfactory for eight days, when he succumbed to an attack of acute tuberculosis, within twenty-four hours of its onset.

CASE XXIX.—L. Turner, New York, æt. 33; married. Family history good. Came to me December 17, 1877, with the history of a neglected cold, two years before, developing into chronic lung trouble, and for three months she had suffered from pain and distress, referable to the larynx, with painful deglutition, etc. The lungs were in the third stage of catarrhal phthisis, with cavities at right apex; the larynx in the third stage of laryngeal phthisis, the epiglottis being involved in the ulcerative process. The treatment gave the most flattering relief to the subjective symptoms, and there was a decided improvement in the appearance by laryngoscopic examination; but an attack of acute miliary tuberculosis occurring four months after I first saw her, resulted in death six days after the onset of the attack, but the relief to the laryngeal symptoms remained.

This embraces only a portion of the cases seen, and only those which have presented conditions later than the first stage. All the bad cases are given as far as possible. Many cases have come to the clinic but once or twice, and of course no continuous record of them has been obtained.

The histories embrace 29 cases: in the second stage 8 cases; in the third stage, epiglottis not involved, 11 cases; in the third stage, epiglottis involved, 10 cases. Of the 8 in the second stage, 4 were cured, with a chronic laryngeal catarrh remaining; 4 simply relieved, irregular in attendance; all suffered from chronic pulmonary disease. Of the 10 in the third stage, with epiglottis unaffected: cured, 1; cured, with chronic laryngeal catarrh remaining, 6; relieved (on one of whom tracheotomy was performed), 4. In this group the disease was caused by chronic lung disease in 8; by syphilitic asthenia, 1; by Bright's disease, 1; by anæmia and occupation, 1. Of the 10 suffering from the epiglottic form of the disease,

2 were cured; one with chronic laryngeal catarrh, one with aphonia from cicatrices, and also a considerable trace of small warty growths in the larynx, due to the excessive cell-proliferation characteristic of the disease; on one I performed tracheotomy, with very marked relief; he died, however, on the tenth day from acute miliary tuberculosis; seven were only relieved somewhat of the subjective symptoms. Of the causes of the disease in this group, one was due to malaria and the direct effect of occupation—a tanner; and nine to lung disease.

Grouping the 29 cases: there were cured, 1; cured, with chronic laryngeal catarrh remaining, 11; cured, with aphonia from warts and cicatrices remaining, 1; relieved to a more or less extent, 16.

Of these 13 cases virtually cured of the laryngeal disease, 5 were in the third stage of tuberculosis, with cavities; 2 were in the second stage; 3 in the first stage; 1 had Bright's disease and chronic catarrhal pneumonia; 1 malaria; 1 chronic catarrhal pneumonia.

The points, in closing, that the writer desires to emphasize are:

1st. Laryngeal phthisis may develop from a simple catarrhal inflammation, if there exists an impaired state of health from any cause.

2d. The progressive stages are catarrhal infiltration, catarrhal ulceration, and follicular inflammation, and tubercle plays no part in its primary causation or development.

3d. The disease is far more amenable to treatment than is generally taught, especially if treated in the earlier stage.

4th. Tracheotomy is justifiable as a remedial measure, when local remedies fail to relieve, and before it is demanded by dyspnœa from inflammatory stenosis.

## PREVAILING DISEASES AND EPIDEMICS OF THE FIRST QUARTER OF THE YEAR 1879.

By JOHN C. PETERS, M.D.,

CHAIRMAN OF THE COMMITTEE ON EPIDEMICS OF THE PUBLIC HEALTH ASSOCIATION OF NEW YORK, AND OF THE COMMITTEE ON HYGIENE OF THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

From personal observation, conversation with many of the most prominent physicians, and communications from leading medical men, like Drs. Alonzo Clark, Austin Flint, Fordyce Barker, H. B. Sands, Abraham Jacobi, James R. Leaming, C. S. Wood, and many others, it has become evident that the health of this city has not been nearly as good as in 1877 and 1878; and has approached in mortality those unhealthy years 1875 and 1876.

The exact figures are: 7,576 deaths in the first three months of 1879; 6,664 in the same period in 1878; 6,002 in 1877; 7,633 in 1876; 7,842 in 1875; and 6,552 in 1874.

The principal cause for this variation in the mortality has been the mildness or severity of the winters. We had a mild winter in 1874; very severe winters in 1875 and 1876; mild winters in 1877 and 1878, and a long and rather severe winter, with much snow and ice, this year.

All the statistics have been supplied by Dr. Nagle, of the Bureau of Vital Statistics. The deductions are my own.

All are agreed that scarlet fever has been the only severe prevailing epidemic, although a curious minor plague—that of catarrhal inflammation of the eyes—is now going on.

There were 730 deaths from scarlet fever in the first quarter of 1879; 317 in the same period of 1878; 293 in 1877; 245 in 1876; 186 in 1875; and 330 in 1874.

As 67 per cent. of the cases and deaths from scarlet fever occur in children under 5 years of age, and 24 more per cent., or 91 per cent. in all, happen in those under 10 years of age, it is evident that we must expect an epidemic of scarlet fever every five, seven, or ten years; unless this is prevented by cleanliness, isolation of patients; or, by disinfection, which must rival in care and minuteness the Lister method in surgical diseases.

Next in point of severity and frequency has been pneumonia, which has nearly reached the epidemic proportions that it did in 1875 and 1876, and from the same cause, viz., the length and severity of the winter. The statistics are: 922 deaths in the first quarter of 1879; 833 in the same period of 1878; 753 in 1877; 946 in 1876; 1,071 in 1875; and 763 in 1874.

The allied diseases of pneumonia, viz., *bronchitis, consumption, rheumatism, heart and kidney disease*, have also been on the increase.

There were 434 deaths from bronchitis in the first quarter of 1879; 391 in the same period in 1878; 371 in 1877; 437 in 1876; 396 in 1875; and 349 in 1874.

There were 1,214 deaths from consumption in the first three months of 1879; 1,163 in the same months, viz., January, February, and March, of 1878; 1,054 in 1877; 1,123 in 1876; 1,188 in 1875; and 1,009 in 1874.

*Rheumatism*, which leads to heart, kidney, and lung disease, has been more prevalent this year than usual, doubtless excited by cold weather, and melting snow and ice. There were 398 deaths from heart disease in January, February, and March, 1879; 294 in the same months in 1878; 244 in 1877; 240 in 1876; 260 in 1875; and 216 in 1874.

*Bright's disease*, which is caused by exposure to cold and wet quite as much as it is by alcoholism and heart disease, caused 376 deaths in the first quarter of the year 1879; 282 in 1878; 270 in 1877; 327 in 1876; 296 in 1875; and 256 in 1874.

*Whooping cough* is tending towards epidemic frequency. The statistics are: 219 deaths in the first quarter of 1879; 63 in the same period in 1878; 92 in 1877; 139 in 1876; 132 in 1875; and 107 in 1874. Whooping-cough, like scarlet fever and measles, prevails among the young, and we have to expect a new epidemic every five, seven, or ten years. Its danger is, of course, increased in cold weather, and absolute disinfection of all the expectoration and vomits is the only means that we have of staying its spread.

*Measles*, as has often been noticed before, is apt to lessen during the prevalence of scarlet fever. There were only 5 deaths in the first quarter of 1879, against 128 in the same period in 1878; 9 in 1877; 172 in 1876; 18 in 1875; and 94 in 1874.

*Small-pox* has almost been stamped out by better vaccination and re-vaccination by physicians and the Board of Health. There were no deaths from it in the first quarter of 1879; only 1 in 1878; 5 in 1877; no less than 194 in 1876; as many as 372 in 1875; and only 22 in 1874.

*Diphtheria* is steadily lessening, and its place is being supplied by a milder form of diphtheritic sore-throat. There were only 224 deaths from it in the first quarter of 1879; against 331 in the same period in 1878; 226, in 1877; no less than 725 in the same three months in 1876; 608, in 1875; and 308, in 1874.

The singular fact here protrudes itself that diphtheria is lessening in the face of an epidemic of scarlet fever, to which it so often allies itself; and in spite of severe weather, which so often precipitates it; and of greater filthiness of our streets, which so frequently aggravates all septic and malignant diseases. But the great nuisance of Hunter's Point has been abated, and also many minor nuisances, both on the east and west sides of the city. As diphtheria is also pre-eminently a disease of children, it is barely possible that an epidemic has run its course for the present, and may crop up again in severe proportions in the course of a few years, after a greater number of susceptible subjects have been born. But it is very evident that the same defects in sanitary arrangements in houses, which used to cause, or seem to cause, malignant diphtheria, now only excite a milder form of diphtheritic sore-throat, and follicular tonsillitis, which runs its course favorably in four to six days. I have seen diphtheritic sore-throat, repeatedly, in every floor of apartment houses, arising from sanitary defects in the cellar, which apparently would have caused diphtheria a few years ago.

The diseases of the spring, viz., *erysipelas*, *pyæmia*, and *puerperal fever* have also been on the increase. Of these we only have statistics of puerperal diseases, which caused 104 deaths in the first quarter of 1879; 89, in 1878; 103, in 1877; 99, in 1876; 135, in 1875; and 116, in 1874.

*Typhoid fever* has been slightly on the increase. There were 104 deaths in the first quarter of 1879; 89, in that of 1878; 103, in 1877; 97, in 1876; 135, in 1875; and 116, in 1874.

*Malarial diseases* have caused 78 deaths in the first quarter of this year, mainly in the Twelfth, Nineteenth, and Twenty-second Wards, all of which are in the extreme upper parts of the city. But I have met with a severe case in Twenty-second Street, between Broadway and Fourth Avenue, in the person of a hypochondriac, who had not been out of the house for fifteen years, nor below the third story of that house; so that severe intermittent fever can evidently be generated in the middle of the city, either from exhalations from drain-pipes, or from the use of ice which has been collected from swampy regions, or from damp cellars, or from foul drinking water, or some other conjectural cause.

The greater quantity of snow and ice, coupled with great neglect in cleaning the street crossings, also caused almost an epidemic of fractures, dislocations, and bodily injuries from falls.

Changes in the weather are undoubtedly the great causes of mortality, viz., the extreme cold of winter, and the intensity of the heat of summer, and especially the rapid changes from one to the other.

Against these the people must protect themselves as best they can, especially against the extremes of cold, by proper diet and clothing.

It is almost impossible to calculate the number of cases of catarrh, pneumonia, pleurisy, rheumatism, croup, apoplexy, consumption, bronchitis, heart-disease, kidney and uterine disease, which might be prevented by proper attention to bed and body clothing, both by night and by day.

For these the health authorities are blameless, and physicians and their clientèle are culpable.

We may safely assume that the number of deaths from bronchitis, pneumonia, catarrh, influenza, croup, diphtheria, consumption, rheumatism, heart and kidney disease will attain its maximum in December, January, February, and March of each year; will decline somewhat in April, May, and June; reach their minimum in July, August, and September; and again increase in October, November, and December.

But it may be safely stated that much malignant sore-throat, pneumonia, consumption, bronchitis, etc., may be produced by the simple inhalation of foul air in badly ventilated rooms and houses which are constantly pervaded by the smells of cooking, or from foul clothes and boots and shoes, or from unclean cellars and kitchens, drain-pipes,and from the aromas from foul streets, gutters, sewers, docks, and foul grounds.

In old times malignant and so-called typhoid-pleurisy, sore-throat, and pneumonia, were thus produced in vast epidemics, and they are not so very uncommon now, even in comparatively good-looking houses.

There is very little doubt, also, that much severe, obstinate, and even fatal, throat and lung disease is caused in delicate and susceptible persons by the very impure gas which is furnished by some of the gas companies.

Of the great class of infectious and contagious diseases, it is impossible to speak too highly of the exertions of the Board of Health, and physicians, and the populace generally, in the eradication of small-pox.

The great fever-nests have also been comparatively broken up, and typhus and typhoid fevers have long been reduced to their minimum, so that New York has often furnished fewer of these diseases than much smaller towns and even villages.

Diphtheria has diminished largely, either from unknown causes, or from a better preventive and curative treatment.

But there is every reason to fear that scarlet fever, measles, whooping-cough, have not been brought as much under the control of sanitary science as the progress of medical art has rendered possible.

Disinfection in these diseases is either not properly understood, or consistently enforced for a sufficient length of time, or else must be considered imperfect.

All these diseases progress most rapidly in badly ventilated houses, which are always infested with the smells of cooking, or from unclean persons or things.

Every excretion from the skin, nose, throat, lungs, stomach, bowels, and kidneys in these disorders, should be disinfected at once; the person, hair, and bed and body clothing, carpets, curtains, floors, walls, etc., must be cared for. And after this the patients, however well they may seem, should not be allowed to join their associates, at home or abroad, in churches, schools, or other places of assembly, until their persons and clothing are rendered absolutely free from infection.

For this physicians and parents are first responsible, but a large amount of proper advice and control is to be expected from the health authorities.

But the greatest amount of care by individuals and physicians will not prevent the spread of these diseases, as long as foul streets, gutters, sewers, etc., are allowed to poison the air.

That these have been shamefully neglected, there is not the slightest doubt, although the difficulty of removal of filth from the city is fully appreciated.

The enormous extent of our country, and the productiveness of much of its soil, seem to render the great bulk of city offal and manures valueless; to say nothing of the extreme offensiveness of garbage and street sweepings.

But it would seem that there are barren spots enough near the city, to render such products welcome if they could be transported with less expense and offence.

There are cities, however, which distribute all their street-sweepings and garbage to near barren lands with the best results; but it seems easier, if more wasteful, to dump them into the rivers, or tow them down to the sea, than to otherwise dispose of them. They can be made most useful and healthful on cultivated lands, but it is doubtful whether their deleterious qualities can ever be overcome if used to fill up low lands upon which dwellings are to be built, or to fill up streets or docks. However much these foul materials may be covered over with clean earth, or ashes, it is very probable, nay, absolutely certain, that such localities will remain forever unhealthy.

It seems not impossible that a good system of disinfection of garbage and street sweepings might be carried out at the dumping places, so that these naturally foul materials might be carried away by rail or boat.

There must be many places on our river, sea, and sound-shores to which such materials might be carried comparatively free of offence.

The pure unadulterated and offensive material is carried to some of the sandy wastes of Long Island, with profit, doubtless, by some wealthy persons; but with very great nuisance, which might easily be abated at a small expense, no greater than that caused by throwing a slight covering of clean soil over each open car. This would absorb sufficient of the fertilizing material to pay for the outlay.

## Progress of Medical Science.

Treatment of Pertussis.—In the treatment of this disease Birch-Hirschfeld speaks highly of inhalations of weak solutions of carbolic acid, combined with constant residence in a room whose air is kept loaded with carbolic-acid fumes by means of frequent sprinkling with a twenty per cent. solution of the acid. The patients should only be allowed to exercise in the open air for about an hour a day, and that only in fine weather. This treatment was first employed in the Blind Asylum in Dresden, where it proved very successful in a severe epidemic of the disease. None of the patients presented any symptoms of carbolic-acid poisoning while under treatment. During the first two or three days of the treatment no diminution in the number or violence of the convulsive attacks was noticeable; but after that an improvement invariably set in, the attacks becoming progressively less severe and less frequent. As a rule, the convulsive stage ceased after one week of the treatment; but in a few cases it dragged on into the second week. A slight bronchial catarrh usually persisted for several weeks. It was a noticeable fact in this epidemic that, when the sprinkling was discontinued on the fourth day, the attacks on all the patients under treatment at once became more frequent and violent, but again diminished in number and severity as soon as the sprinkling was recommenced. Birch-Hirschfeld has since employed this method of treatment in eighteen cases, some of them being in very young children, and in all the results were equally satisfactory. In one instance, in which a child one year of age and another two years of age were simultaneously under treatment, they were allowed to sleep in a room in which no carbolic acid was used; although the convulsive stage began with great violence in both of these cases, it lasted respectively only nine and eleven days.

Another method of treating the disease, which is recommended by Dr. Neubert, of Leipsic, consists in the use of inhalations of a one per cent. solution of salicylate of soda, administered by means of a spray apparatus. He administers the inhalations every hour or two hours, the patient being placed in the horizontal position, and made to draw in deep breaths with widely-opened mouth. Dr. Neubert has only employed the inhalations in two cases occurring in the same family; but his success was so striking that he hastens to lay it before the profession. In both cases various methods of treatment had been tried for ten days; but the attacks were becoming more and more violent. Under the inhalations one of the children recovered very rapidly; in the other child the vomiting ceased immediately, and the attacks fell in five days from forty-eight to ten per diem, and disappeared entirely in four een days. *Med.-Chir. Rundschau*, January, 1879, and *Jahrbuch. für Kinderheilkunde*, October, 1878.

On Talalgia and its Treatment.—M. Bucquoy states that he has employed the salicylate of soda successfully in the treatment of that very obstinate affection characterized by pain in the calcaneum, which is not unfrequently met with in gouty and rheumatic subjects. The affection is not attended by swelling or change in the color of the skin; but the pain produced by pressure on the central part of the heel is sometimes exceedingly intense. He begins with one drachm of the salt per diem, increasing the quantity if necessary to two drachms, and even more. In large doses he states that it sometimes has a hypnotic action analogous to that of chloral.

M. Panas draws attention to the fact that the pain of talalgia is seated in the very centre of the heel, at a distance from the bursa mucosa of the tendo Achillis, and that it does not correspond to any important nervous twig. The pain is deep-seated, circumscribed, does not radiate into the lateral or posterior surfaces of the calcaneum, and seems to be located in the bone itself; it is sometimes, however, referred also to the articulations of the os calcis. M. Panas first met with the affection in a gonorrhœal subject. The rheumatic diathesis is the primary cause of the affection; as an exciting cause, he mentions the frequent pressure of the heel in the ground on walking.

M. Desprès regards talagia as a malady peculiar to walkers; he calls it the "policeman's disease." Sometimes the patient is compelled to walk entirely on the front part of the foot, and a sort of tabes equinus is the result. M. Desprès treats the affection with punctiform cauterizations, morphine, arsenic, bromide of potassium, etc.; he also prescribes shoes so made as to disseminate the points of pressure. For the rhumatic element he has also administered the salicylate of soda in doses of about one drachm and a half per diem, but frequently without success.—*Lyon Médical*. No. 5, 1879.

Hæmatinic Properties of Dialyzed Iron.—In the present state of the discussion as to the value of dialyzed iron, the experiments of Dr. Amory, the results of which are given below, will be of interest, as tending to define more clearly some of the effects of this drug. In five cases which presented very marked symptoms of anæmia, a careful estimate was made of the globular richness of the blood, and this observation was repeated at various times during the administration of the chalybeate under consideration. The results were uniformly an increase of the red globules, accompanied by a corresponding diminution of the subjective symptoms. In several instances, when the administration of the iron had been discontinued, or

had been irregular, a retrogression was observed by the hæmacytometer and reported by the patient. Dr. Amory does not claim that these observations are sufficient to settle the question, but he thinks they are encouraging, and he prefers this to the more astringent salts of iron. The solutions of dialyzed iron are not uniform; some are useless. That used in these experiments had a specific gravity of 1042, and had no free acid.—*The Boston Medical and Surgical Journal*, April 3, 1879.

SYME'S AMPUTATION FOR CLUB-FOOT IN THE ADULT.—Dr. Stephen Smith reports a case of double Syme's amputation in the adult for club-foot, which was attended by excellent results. At the time of the first operation an attempt was made to save the left foot by excision of the cuboid bone, but was unsuccessful, the patient afterward asking for amputation. In presenting this case to the class Dr. Smith took occasion to urge the superiority of this operation over Chopart's or Pirogoff's, or amputation of the leg, as being a safer operation, and giving a more serviceable stump. —*The Hospital Gazette.*

ONE HUNDRED AND FIFTY OPERATIONS FOR EXTRACTION OF CATARACT.—Charles Higgins, F.R.C.S., presented to the Royal Medical and Chirurgical Society a report of 150 operations for extraction of cataract, of which 76.6 per cent. were successful, 16 per cent. partially successful, and 7.3 per cent. failures. One hundred and four cases were operated on by small flap, 25 by linear section, 21 by oblique corneal section. Iridectomy at the time of extraction, or as a preliminary operation, was strongly recommended. Mr. Macnamara said that he did not place much reliance on iridectomy, but advised the removal of the *entire* lens, if possible, without rupturing the capsule. In the prognosis he trusted much to the state of the pupil and its power of dilating under atropine. He had seen very perfect results from the old flap operation. Mr. Spencer Watson called attention to the method of operating by lacerating the capsule before the corneal section as offering less difficulty; also, the lens was less liable to be displaced into the vitreous humor. Iridectomy was generally advisable; he preferred the operation upward. Mr. Higgins agreed with Mr. Macnamara that the whole lens should be removed; but this was more easily done after iridectomy, which should be as small as possible. There is difficulty in removing the lens entirely in the early stage by the flap operation. He dislikes to introduce instruments beyond the anterior chamber. In most of his cases the upward section had been made.—*The British Med. Jour.*, March 15, 1879.

BLOOD-CELL COUNTING.—Drs. Henry and Naucrede have furnished an interesting report of their experience in employing Hayem and Nachet's hématimètre, and Gowers's hæmacytometer. The principle of both these instruments consists in diluting a known quantity of blood with a known quantity of fluid and then counting the number of blood-corpuscles contained in a cell of a certain depth and superficies. Gowers's instrument was described by him as follows: "The hæmacytometer consists of (1) a small pipette which will hold exactly 995 cubic millimetres; (2) a capillary tube which contains exactly 5 cubic millimetres; (3) a small glass jar in which the dilution is made; (4) a glass stirrer for mixing the blood and solution; (5) a brass stage-plate carrying a glass slip, on which is a cell one-fifth millimetre deep, the bottom of which is divided into one-tenth millimetre squares. Upon the top of the cell rests the cover glass. The procedure is very simple. 995 cubic millimetres of the solution are placed in the mixing-jar; 5 cubic millimetres of blood are drawn into the capillary tube from a puncture in the finger, and then blown into the solution. The two fluids are then mixed by the stirrer, a small drop placed in the centre of the cell, and covered by the covering glass. In a few minutes the corpuscles sink to the bottom of the cell, the number in ten squares is counted, and this multiplied by ten thousand gives the number in a cubic millimetre of blood. The average of healthy blood is 5,000,000 per cubic millimetre, or 100 in .00002 cubic millimetre or two squares (hæmic unit)." In experimenting with two of these instruments, Drs. Henry and Naucrede soon found that they behaved very differently, although the care taken to prevent error in manipulation was so great that it was impossible to attribute it to that source. Upon measurement, it was found that the cells were inaccurate, one being $\frac{1}{180}$ inch deep, the other about $\frac{1}{174}$ inch. The two cells were to each other as 5 to 7, and the difference in the count should therefore have been 40 per cent. In reality, there was only 15 per cent. difference, and the authors suggest as an explanation of this discrepancy that, *up to a certain point*, the depth of the cell has a direct influence upon the result; beyond this point the depth of the cell is of minor consideration.

In order to make the conditions of each count identical, the authors finally used a *ground* glass cover, which was marked so that the same side was always applied to the fluid. It is important to use the same cover-glass in the same position, because these glasses possess flaws and curves, and the discrepancies resulting therefrom may be very great.

The great source of inaccuracy, however, is in the measurement of the blood and diluting fluid. By counting a great number of squares, any inequality in the distribution of the corpuscles may be compensated for to a great extent, but in two successive measurements and counts of the same blood, an extreme variation of 790,000 per c. mm. was found. No one measurement of blood can be relied upon as trustworthy, but at least two should be made, and more if possible. Drs. Henry and Naucrede (both in perfect health) found 5,566,272.5 as the average number of red corpuscles in 21 counts for one, and 5,939,862.5 as the average of 26 counts for the other, the difference seeming to depend upon weight and size. It was also found by a series of experiments, that too much stress has been laid upon the manner of puncturing the finger so as to cause the flow of blood.

The authors can perceive no advantage in Gowers's instrument over that of Hayem and Nachet, beyond the facility it afforded for reckoning percentages, and this is more than counterbalanced by the greater ease with which counts are made in the smaller squares of Hayem and Nachet.—*The Boston Med. and Surg. Journal*, April 10, 1879.

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A NEW MEDICAL JOURNAL.—*The Medical Herald* is the name of a new monthly forty-eight paged double-columned octavo journal lying upon our table.

It is published in Louisville, Ky., and edited by Dr. Dudley S. Reynolds, Professor of Ophthalmology and Otology in the Hospital College of Medicine, Medical Department of Central University. The journal is simply an enterprise of its editor, who aims to make it satisfactory to himself and interesting to his readers.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, May 24, 1879.


## MALPRACTICE.

THE malpractice suit against the Manhattan Eye and Ear Hospital, of which we gave an account in our last number, has not only terminated favorably for the hospital, but it has also been the means of securing for the medical profession a decision which will protect it much more than it ever has been protected from unjust assaults. The counsel for the hospital, Mr. Wm. Allen Butler, made an elaborate argument for dismissal of the complaint.

This argument was based upon a decision given by the Supreme Court of the State of Massachusetts, which, in effect, decided that if a hospital had exercised due diligence in securing skilful and careful medical men for the treatment of its patients, it was not liable for any malpractice of which those medical officers might be guilty. Judge Lawrence reaffirmed this decision with regard to the State of New York. For the first time, therefore, in our history, hospitals are protected from suits of this kind, for it is not to be conceived that any respectable hospital will not exercise due diligence in securing careful medical officers. At any rate, in any such future suit, the only proof necessary will be that such was the case. In this particular instance the judge went further, and stated that there was no evidence to sustain the allegation of the plaintiff, but, on the contrary, there was overwhelming evidence as to the carefulness and skill of the surgeons. As we said last week, the profession is to be congratulated that there was no difference of opinion among its own members, the plaintiff being unable to produce a single medical witness to controvert the testimony of the medical staff of the hospital and other physicians who testified. Inasmuch as this decision involves very important points, and is of great interest to the profession, we have given it this extended reference:

The Manhattan Eye and Ear Hospital has been at the expense of securing this decision by engaging the services of one of the most distinguished members of the New York bar to defend their cause. It seems to us that the other hospitals of the city might well consider the propriety of paying the expense of litigation, the termination of which has protected them from similar accusations. We should be glad to hear from the directors of the hospitals of this city upon this point, for the institution in question is poor and utterly without means to defray the expense of a trial that has been hanging over it for two years.

### AMERICAN ASSOCIATION FOR THE CURE OF INEBRIATES.

THE American Association for the Cure of Inebriates held its last meeting in this city, May 13th and 14th. The attendance was not large, but the Association is composed of men who are thoroughly interested in the work, and who feel gratified with the progress which has been made in the diffusion of right ideas in regard to inebriety. The Association is based upon the view that inebriety is a disease as distinguished from the habit of excessive drinking, which is a vice, and that it is distinguished mainly by two features, periodicity and transmissibility. By periodicity is meant the tendency for the attack to occur at intervals, either regularly or irregularly; and by transmissibility is meant the tendency for the disease to be transmitted from parents to children. The Association holds to the doctrine, which it believes is confirmed by practical experience, that confirmed inebriates cannot, as a rule, cure themselves; that they must be kept out of the temptation to drink for a limited period, varying from a number of weeks to a number of months, or even several years. They hold that it is not practicable to put patients belonging to that class upon their honor, for the power of the disease is greater than the desire to keep a promise. There have been practical difficulties, both legal and professional, in the carrying out of the plans of the Association, just as there are practical difficulties in all new enterprises. The Binghamton Asylum, for various reasons, which need not be detailed, has not been a great success. These failures, however, are no discredit to the principle upon which the Association is founded, and which is believed to be sound in science, justified by results, and promises to be the universally accepted doctrine of the next century. The recent criticisms of Bucknille upon inebriate asylums in this country were partial and imperfect. Some of his statements are true, but they are not *all* the truth. They tell but one side of a complex subject. Some of the best and most successful institutions, like those in Chicago and Fort Hamilton, he did not visit. The results of experiments on the part of the Association during the last nine years seem to make clear the fact, that where proper State laws exist upon the subject, and in an asylum which is properly conducted, about one-third of the cases can be permanently cured. If this result shall be confirmed by the future, the showing, cer-

tainly, will be a most encouraging one. For in the treatment of insanity no such results are claimed; and of nervous diseases generally, take them as they come, functional and organic, under the best treatment of modern times, it is doubtful whether one-third are permanently cured. Statistics upon the subject, as upon all subjects, are liable to mislead the unwary. It is difficult to follow out the histories of those who leave asylums. But in some institutions especial pains are taken to keep upon the track of those who have been inmates, and information thus obtained is of scientific value.

It is to be hoped that the Association will continue its work until the true foundation of inebriety is touched and laid bare, so that not only the medical profession, but the entire people may be able to see it as it is and act wisely for its removal.

### MEDICAL CERTIFICATES.

We have received a copy of *The Atlantic Review*, a very enterprising local paper published at Atlantic City, N. J., and devoted largely to advertising the unexampled advantages of that seaside resort. The present number is put forward as a climax of editorial enterprise in that it contains certificates from about three hundred Philadelphia physicians to the remarkable value of the place. The names, titles, and addresses of the doctors are given with great fulness, and the testimonials are written with a generous breadth of endorsement that reminds us of the grateful epistolary tributes to Hostetter's Bitters and Helmboldt's Buchu. One gentleman praises the air, another the sea, a third the accessibility of the place, and a fourth the baths. The remarkable effect of the resort upon children, especially in their second year, impresses itself upon a fifth, and all carefully add title and address to the testimonial. "Brain-wearied men and delicate females," "those suffering from chronic disease," "from loss of tone in the digestive system," from phthisis and bronchial complaints, from general debility, and those in convalescence, are all rapidly and surprisingly invigorated at this unassuming retreat. We are assured that the place has advantages much superior to those of the torpid and enervating climate of Florida. In fact, here at last is a place where the seeds of disease die out and the fires of youth are kindled again.

It is more or less pleasing, in this connection, to notice that this widely advertised three hundred—and the edition of the *Review* is an especially large one—does not include the Regulars alone. The Secretaries of two Homœopathic Societies join with the Professors in the Philadelphia colleges in hearty endorsement of the baths and boarding-houses, the atmosphere, the soil and the something, they don't know what, which destines Atlantic City to create an era in sanitary therapeutics. Bolus and globule act equally well here; regular and homœopath are emblazoned side by side in the enterprising columns of *The Review*.

Exactly why it was on or about April, 1879, that the piercing intellect of Philadelphia's three hundred medical men was thus moved to a simultaneous approval of Atlantic City, history will probably never know; but though the reasons for the date are obscure, the primary cause of the event has been told us. We quote: "The marvellous effect of the climate of Atlantic City upon their patients has induced these physicians for the sake of mankind to publish voluntarily over their own signatures [also their titles, addresses, and everything else but the office-hours] the proof of our city as a health resort. . . . . It is the grandest thing that has ever been published in the history of the place. . . . . We are glad to say that proprietors of boarding-houses are subscribing generously to this issue, and that others have promised to join in the good work." Now we suspected this on first glancing at the testimonials—and the office addresses. The love of mankind was at the bottom of all, a passionate yearning for the bettering of the race not to be controlled by the hackneyed and unsympathetic restrictions of the national code of medical ethics. This same sentiment is ever cropping out among our "eminent" men. We have had it in New York, and Appollinaris Water was the boon too great to go unendorsed. And so the Philadelphia doctors, unable to control the impulses of benevolence, have furnished the certificates to Philadelphia's Coney Island; "the sad, sweet music of humanity" rises in more cheerful strains, and "the grandest thing" in the history of Atlantic City has been accomplished. We trust it may be a pleasant memory to the three hundred, if patients fail and fees grow small, or when age comes on and the silent tomb is near, to feel that they have assisted in proclaiming to humanity, over their own signatures and addresses in full, the unspeakable advantages of Atlantic City, and in thus having created an epoch of no inconsiderable grandeur in municipal and boarding-house history.

More seriously, however, it seems as though this matter of endorsing medicines and health-resorts should be definitely attended to. There can be no doubt that it violates the code and is opposed to the general sentiment of the profession. The custom has been stopped here and in Chicago, but it is constantly developing itself again. Either it should be summarily put an end to, if possible, or consent to do it generally should be given, and to the latter alternative we do not believe the profession will agree. Once have it understood that a medical recommendation is a legitimate thing for a public journal, and no disciplining body can draw the line between proper endorsements and the most flagrant advertisements. There are too many of these Philadelphia gentlemen to make it possible to call them to account. It is not unlikely that some of the names are inserted unwarrantably;

and indeed they have placed themselves in a light that is quite as ridiculous as it is unprofessional. Nevertheless, such performances should not go unnoticed, and it will be extremely discreditable if they are repeated.

### PREVENTION OF EPIDEMICS.

To guard against invasion by epidemic diseases is one of the duties of the present hour. Last year a large portion of our country was invaded by a pestilence which produced ravages more terrible, if possible, than those of war, and the medical profession has been stirred, since those eventful days, to renewed activity concerning quarantine regulations and general sanitation. We have had reason to be proud of the efficient quarantine that guards the entrance to this port, and have no cause for believing that in the future its vigilance will in the least be abated. There is one point, however, which seems worthy of mention, and that is the fact, lately brought to light, that if by any means an infected vessel once reaches the dock, there is no legal power by which it can be removed. A bill has been introduced into the State Senate, now in session, intended to remove this loophole of escape; and if it be true that there is no statutory provision to meet the exigencies of such an invasion, whether wilful or through apparently unavoidable circumstances, we hope our law-makers will lose no time in seeing that such a statute is provided—and provided in such shape that, if occasion arises, it can be executed without a moment's delay. It is a question that touches the vital interests of this port, of this State, and of adjoining States, and we trust the deficiency in the law will at once be remedied.

### M'DOWELL, THE FATHER OF OVARIOTOMY.

At the Annual Meeting of the American Medical Association, held in the city of Detroit, Michigan, in 1874, Dr. J. M. Keller, of Kentucky, offered a resolution endorsing the action of the Boyle County Medical Society (Kentucky), and the Kentucky State Medical Society, toward the erection of a monument to Dr. Ephraim McDowell, of Danville, Ky., who was the father of ovariotomy, and performed his first operation in his own town in the year 1809. The resolution was unanimously adopted. At the Annual Meeting held in the city of Louisville, Ky., in 1875, the Special Committee, of which Dr. J. Marion Sims, of New York, was Chairman, and Drs. Washington L. Atlee, of Pennsylvania, W. T. Byford, of Illinois, and J. M. Keller, of Kentucky, were members, reported, among others, the following resolution: "*Whereas*, it is universally acknowledged that the late Ephraim McDowell, of Kentucky, was the originator of the operation of ovariotomy." Then followed resolutions devising plans for the establishment of the McDowell Memorial Fund, and remarks by Dr. S. D. Gross, of Philadelphia, regarding the justice of the claims of Dr. McDowell to the origination of the operation, all of which was endorsed and adopted by the Association.

This is a brief history of the nucleus around which have since gathered the donations from the medical profession of this country, more especially of the commonwealth of Kentucky, and to-day we are able to chronicle the accomplishment of the work, and the erection of a suitable monument which confers "honor upon whom honor is due." The name of Ephraim McDowell, who was born in Rockbridge County, Va., November 11, 1771, performed the first ovariotomy in 1809, and died in the year 1830, will receive the homage due to a man who introduced one of the greatest surgical operations the world has ever seen, and one which has and will ever continue to bring unmeasured benefits and blessings upon woman. In the movement now represented by a plain shaft of granite, the medical societies of the State of Kentucky, the American Medical Association, and the members of the medical profession throughout the country, have done themselves lasting credit.

He did not live to be old; but the great question is, not how many years a man has lived, but how he has employed them. For an account of the proceedings upon the occasion, we refer our readers to the excellent report from our special correspondent.

## Reports of Societies.

### AMERICAN MEDICAL ASSOCIATION.

THIRTIETH ANNUAL MEETING,

*Held in the City of Atlanta, Ga., May 6, 7, 8, and 9, 1879.*

REPORT OF SECTIONS.

SECTION ON PRACTICAL MEDICINE, MATERIA MEDICA, AND PHYSIOLOGY.

DR. THOMAS F. ROCHESTER, of Buffalo, N. Y., Chairman.

DR. W. C. GLASGOW, of St. Louis, Mo., Secretary.

TUESDAY, MAY 6TH—FIRST DAY.

THE Section was called to order at 8 P.M. by the Chairman.

The first paper read was by DR. N. S. DAVIS, of Chicago, Ill., and entitled

#### CLINICAL AND METEOROLOGICAL RECORDS.

The object of the work of obtaining clinical and meteorological records was to obtain the actual etiology of acute diseases. Dr. Davis has been an active worker in this department, and his present report was a continuation of that already made to the same Section at the annual meeting held in Chicago in 1877 (see MED. RECORD, vol. xii., p. 378). Beneficial results were still being obtained, and the field of observation was widening.

The paper was referred to the Committee on Publication.

EXPERIENCE OF CONSUMPTIVES IN COLORADO, AND SOME OF THE AËRO-HYGIENICS OF ELEVATION ABOVE THE SEA, WITH CONCLUSIONS,

was the title of a paper written by DR. CHARLES DENISON, of Denver, Colorado, and presented by Dr. John P. Logan, Chairman of the Committee of Arrangements.

Some difficulty being experienced in reading the paper, the reading, on motion, was discontinued, and the further consideration of the subject was postponed until 3 P.M. on Wednesday.

The Section then adjourned to meet on Wednesday May 7th, at 8 P.M.

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WEDNESDAY, MAY 7TH—SECOND DAY.

The Section was called to order at 3 P.M. by the Chairman.

The first order of business was a continuation of the paper on "Aëro-hygienics of Elevation above the Sea," by Dr. Denison, of Colorado.

DR. DENISON asked that the Section recommend the Signal Service Bureau to prepare charts to be published with his paper, and on motion his request was granted.

The motion to refer the paper to the Committee on Publication gave rise to discussion, but the paper was finally so referred.

ON THE USE OF WATER IN THE TREATMENT OF DISEASES OF THE SKIN,

was the title of a paper read by DR. L. D. BULKLEY, of New York. It contained the results of the large experience of the author in the use of water in the form of spray, baths, affusions, etc., etc., more especially in the treatment of chronic diseases of the skin. It was discussed by DRS. F. P. PORCHER, of Charleston, S. C., and J. V. SHOEMAKER, of Philadelphia, Pa., and referred to the Committee on Publication.

ADDRESS BY THE CHAIRMAN.

The Chairman's address before the Association in general session was presented by the Secretary.

DR. T. B. LESTER, of Kansas City, Mo., was called to the chair.

DR. T. S. HOPKINS, of Augusta, Ga., moved that the address by the Chairman be referred to the Committee on Publication. The motion gave rise to discussion, which was participated in by DR. LYON, of New Orleans, who made special reference to the portion recommending the establishment of a national quarantine as a preventive of yellow fever. He said that the treatment of yellow fever was as well understood as was the treatment of any other serious disease; that yellow fever did originate in New Orleans, and that there was never a year that there was not yellow fever in that city that originated there. Dr. Lyon contended that quarantine laws did no good, and as proof he said, that during the late war, when there was not and could not be any communication between New Orleans and the West Indies, there was not a single year but there were cases of yellow fever in New Orleans.

He contended that the disease was not contagious, and that it would in future, as it had done in the past, continue to originate in that city. He believed in local sanitary measures instead of the quarantine.

DR. HOPKINS, of Georgia, agreed with Dr. Lyon that yellow fever was of local origin, and that quarantine regulations were useless in preventing the disease.

DR. BROWN, of Texas, asked Dr. Lyon if quarantine did not keep the fever out of Texas.

DR. LYON replied that it did not, and asked the gentleman why it did not keep it out of Jackson, Mississippi, which was surrounded by men armed with shotguns.

The question was not answered.

DR. A. W. DE ROALDES, of New Orleans, said that in a large majority of years yellow fever originated in New Orleans. He believed that proper sanitary measures would prevent epidemics in that city. He did not favor a national quarantine law.

DR. ROCHESTER said he had not treated a case of yellow fever in twenty-eight years. He did not doubt that there were occasional cases occurring sporadic in New Orleans, but he believed that the quarantine would prevent the terrible epidemics.

DR. FOREMAN, of the U. S. A., said that while the fever might originate in New Orleans, there were cities where it did not originate, and we needed the quarantine against the places in which the fever originated.

The motion to refer the address to the Committee on Publication was carried.

The Section then adjourned to meet on Thursday, May 8th, at 3 P.M.

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THURSDAY, MAY 8TH—THIRD DAY.

The Section was called to order at 3 P.M. by the Chairman.

The first paper was read by DR. G. F. COOPER, of Georgia, and entitled

VERATRUM VIRIDE AND ITS USES.

It was an elaborate résumé of what was known concerning that drug and its uses. On motion it was referred to a sub-committee to be appointed by the Chairman.

DR. W. C. GLASGOW, of Missouri, followed with a paper on

PLASTIC BRONCHITIS.

A review was made of the literature of this subject, and several cases were reported which had fallen under his care and observation.

On motion, the paper was referred to a special committee to be appointed by the Chairman.

INFLAMMATION OF THE HAIR-FOLLICLES OF THE BEARD,

was the title of a paper read by DR. J. V. SHOEMAKER, of Philadelphia, Pa. The peculiar features of the affection were dwelt upon, and certain points in relation to differential diagnosis were fully considered.

The paper, on motion, was referred to a special committee to be appointed by the Chairman.

There being no further business before the Section, it adjourned.

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## SECTION ON OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

DR. E. S. LEWIS, of New Orleans, La., Chairman.
DR. ROBERT BATTEY, of Rome, Ga., Secretary.

TUESDAY, MAY 6TH—FIRST DAY.

The Section was called to order at 3 P.M. by the Chairman.

TUBO-OVARIAN GESTATION (CASE) OPERATION AT THE FIFTH MONTH—DEATH,

was the title of the first paper, and read by DR. ROBERT BATTEY, of Ga. The paper consisted of a detailed account of the clinical history, the diagnosis, the operation, and the autopsy. At the request of the

author, it was withdrawn from the Section, with permission to publish in some medical journal.

Dr. Battey employed the écraseur to open the sac, and believed it to be the best instrument that could be employed, not excepting the galvano-cautery. He believed that the treatment of extra uterine gestation could not be governed by any fixed rules.

ELECTROLYSIS OF FIBROIDS

was the title of a paper presented by DR. E. CUTTER, of Massachusetts, and read by Dr. Dunster, of Michigan. It was merely an appendix to a paper read before the same Section at its meeting in Buffalo, 1878, and published in the *Am. Journal of Med. Sciences* in the same year. [See MEDICAL RECORD, vol. xiii., p. 493.] It was referred to the Committee on Publication.

LACERATION OF THE PERINEUM—TREATMENT BY KEEPING THE BOWELS OPEN, INSTEAD OF CONFINED, AFTER THE OPERATION.

The regular business before the Section having been transacted, the Chairman called upon DR. E. S. DUNSTER, of Ann Arbor, Michigan, to suggest some subject as a topic for discussion. Dr. Dunster responded by announcing the above, and remarked that Dr. Thompson, of Washington, had drawn attention to that plan of management by a report of favorable results obtained in fifty-four cases—in no one instance had there been failure to get good union. About two years ago Dr. Dunster had occasion to operate on a case of complete rupture of the perineum, and, as a part of the preparatory treatment, ordered a laxative. The patient, by some mistake, took an overdose, and the consequence was that during the operation there were fluid discharges flowing from the rectum. After adjusting the sutures and bringing the cut surfaces into apposition, he noticed the *absolute absence of any strain upon the line of the wound* when a fæcal evacuation occurred. The case did well.

He operated upon the next case according to the old plan, and the wound, notwithstanding the care of a skilled nurse, tore open when the first movement of the bowels took place. Dr. Dunster then related two cases in which the bowels remained loose during the after-treatment, and in which complete success was obtained. In one there was a large rectocele, and the patient had from one to three fluid movements, daily, from the bowels. The stitches were removed on the ninth and tenth days, and although the pain and nervous excitement were quite irritating, the union was perfect and the success was good.

He had become convinced that, upon the whole, of course there were exceptions, it was a wiser and a safer method than the plan of constipating the bowels.

DR. M. A. PALLEN, of New York, remarked that the plan of securing looseness of the bowels after operation for rupture of the perineum, was the one which he had adopted for many years. He had recommended the plan in a paper published in 1874, and renewed the recommendation in a paper published in 1875.

DR. KING, of Pittsburg, suggested that tincture of opium could be combined with a saline cathartic, and in that manner both soluble bowels and relief from pain and nervous excitement could be obtained.

DR. ALBERT H. SMITH, of Philadelphia, remarked that, upon theoretical grounds there was great force in Dr. Dunster's remarks. His experience, however, did not confirm the claimed value of the method, although he wished that it might.

DR. DOWELL, of Texas, believed that all the difficulties alluded to might be avoided by administering a full enema just before removing the sutures. Discussion was continued by Drs. Taliaferro, of Georgia, Cole, of California, and Parvin, of Indiana.

DR. M. A. PALLEN, of New York, then presented

A NEW FORM OF PESSARY

for the correction of uterine displacements.

DR. H. F. CAMPBELL, of Augusta, Ga., exhibited a modified stem pessary.

The Section then became agitated upon the subject of pessaries, and discussion was continued until the lateness of the hour disappointed a number of speakers.

The Section then adjourned to meet on Wednesday, May 7th, at 3 P.M., and the subject of pessaries was made a special order.

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WEDNESDAY, MAY 7TH—SECOND DAY.

The Section was called to order at 3 P.M. by the Chairman. The minutes of the previous meeting were read and approved.

NEW INSTRUMENTS.

DR. H. O. MARCY, of Boston, Mass., exhibited and described Jennison's exploring and indicating sound in its complete form. [See MEDICAL RECORD, vol. xiii., p. 493.]

Comments were being made upon the instrument, when the Secretary submitted that it was *patented*, and therefore had no right in the Section. The Chairman decided the point of order well taken.

DR. MARCY also exhibited Dr. Chadwick's gynecological table, and described its convenience and variety of use.

TREATMENT OF UTERINE DISPLACEMENTS BY THE STEM PESSARY

was the title of a paper presented by

DR. E. CUTTER, of Massachusetts, and read by the Chairman. The author recognized the dangers attending the use of an intra-uterine pessary, but believed that there were cases in which the displaced organ could not be held in position by any other form of instrument. The stem pessary employed by him was ordinarily about two and a quarter inches long, sometimes shorter, and was attached to a hard-rubber elbow that was held in place by a band passing around the body of the patient.

The paper was referred to a sub-committee, consisting of Drs. Dunster, of Michigan; A. H. Smith, of Pennsylvania; and Cross, of Arkansas.

NEW INSTRUMENT FOR OPERATION FOR VESICO-VAGINAL FISTULA, WITH CASES.

DR. E. B. TURNIPSEED, of South Carolina, read a paper upon the above subject, which drew the thanks of the Section, and was referred to the Committee on Publication.

The instrument, when complete, embraced a new self-retaining speculum, retractors, large apparatus (used in stitching) bearing a smaller comb-shaped apparatus set with needles, which were clamped when the operation was completed; curved needles, gold triple plated with hard-rubber clamps, with springs; trimmers, dilators on the principle of changeable valves, and a hysterotome.

IMPROVED METHOD OF OPERATION FOR LACERATED PERINEUM.

DR. M. A. PALLEN, of New York, illustrated, by means of diagrams, his method of operating for lacerated perineum, which consisted essentially in

transplantation of the flap dissected up so as to lengthen the vagina.

KOLPOKLEISIS IN A CASE OF PROCIDENTIA.

DR. PALLEN also described this operation, and illustrated it by means of diagrams.

VAGINO CERVIPLASTY.

DR. PALLEN also described and illustrated a plastic operation involving the vagina and the cervix, and as a substitute for amputation of the cervix uteri. The possibility of the operation had been denied by Dr. Emmet, because of the non-existence of elongation of the cervix uteri in the nonparous woman. To the operation Dr. Pallen gave the name vagino-cerviplasty, and recommended it for certain cases of apparent cystitis, painful coition, etc., when the cervix dipped into the vagina one inch anteriorly, and perhaps an inch and a half or an inch and three-fourths posteriorly. He discussed the subject at great length.

The Section then adjourned, to meet on Thursday, May 8th, at 3 P.M.

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THURSDAY, MAY 8TH—THIRD DAY.

The Section was called to order at 3 P.M. by the Chairman. The minutes of the previous meeting were read and approved.

DR. BARTLETT, of Wisconsin, was called to the chair, and the Section entered upon the consideration of the

ADDRESS OF THE CHAIRMAN.

DR. A. H. SMITH, of Philadelphia, alluded to

CHANGE OF PRESENTATIONS AND POSITIONS OF FŒTUS

prior to labor. Those changes could in many cases be effected with ease and advantage. His efforts to convert a posterior position of the occiput into an anterior one, and maintain it, had been uniformly abortive. There was something peculiar in those cases which made them very obstinate. He did not bandage the abdomen after turning the child in utero.

LIGATION OF THE CORD.

DR. SMITH thought that the question whether the cord should be ligated early or late after labor was an unimportant one. His practice was to ligate it as soon as pulsation ceased.

PROLAPSE OF THE CORD.

DR. H. O. MARCY, of Massachusetts, referred to Dr. Garland's method of treating prolapse of the cord by rotating the child in the uterus, thus winding the funis around its body.

DR. MORRIS, of Ohio, doubted the propriety and the success of turning in the eighth and ninth months.

DR. LEWIS, Chairman, explained that the manipulation was effected with greater ease and safety than in the earlier months of pregnancy.

The address was referred to the Committee on Publication.

On motion by DR. WARNER, of Boston, Mass., the Section requested Dr. Battey to return his paper on tubo-ovarian pregnancy to its custody, and referred it to the Committee on Publication.

PESSARIES.

The discussion on pessaries was opened to-day by Dr. A. H. Smith, of Philadelphia. He made special reference to the action of the posterior ligaments—the broad, the lateral, and the anterior ligaments of the uterus—and spoke in high terms of the theory underlying the efficient Hodge pessary.

DR. PALLEN, of New York, took issue with Dr. Smith, and claimed that no man had ever found at post-mortem a condition of ligament that would permit displacement of the uterus. There was no such thing as a ligament of the uterus. The term was a misnomer.

The etiology of displacement was *primarily*, derangement of the pelvic circulation; *secondarily*, laceration of the perineum or other conditions which removed sustentative circumferential support; and, *thirdly*, purely mechanical influences acting from either above or below. He denied the possibility of displacement occurring as the result of straining upon an inflamed ligament.

Dr. Pallen continued the discussion at great length, after which the Section adjourned.

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## NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, May* 1, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

(Continued from No. 20, p. 478.)

POSTURE OF THE PATIENT.

The next point to consider was, what position of the patient was most favorable for the operation of internal traction. As a rule it should be one which would permit the viscera to gravitate toward the upper part of the abdomen, provided such a posture would not interfere with advantageously employing taxis and flexion, adduction, and rotation of the thigh. Practically, however, there was rarely or never any difficulty in combining these various desiderata, although the writer was of the opinion that the value of the aid rendered by getting the thigh in the position just mentioned had been greatly overestimated. Even a slight elevation of the hips (such as placing them upon a pillow, for instance), was all that was necessary in many instances, since this was sufficient to cause withdrawal of the viscera to a considerable extent. The raising of the hips upon the shoulders of an assistant, as in one of the cases before narrated, was recommended by some, while Prof. Gross advised that the patient should be turned over upon the opposite side from the hernia. Mr. Winslow advocated the knee-elbow position while taxis was being made, according to the practice of some gynæcologists in uterine displacements. Finally, it was sometimes desirable to place the whole body on a steep inclined plane with the head downward, as had been done in Number Three and others of Dr. Hamilton's cases. The writer mentioned that this procedure was of old date, and gave a brief sketch of its history. One of the best authorities, Percival Pott, had said that the nearer the patient's position was to that of a man standing on his head, the better. Velpeau, although not attaching any great importance to such a posture, plainly stated that Laurence was in error in holding that no change was thereby caused in the position of the viscera, in consequence of their being so tightly packed in the abdominal cavity, and acknowledged that the procedure did not deserve the oblivion into which it had fallen, or the ridicule which had been bestowed upon it by some. When such were the views of Laurence, it was natural that he should be of the opinion that it was impossible for the measure to be of any service, and Bryant also believed it to be useless, as did Sir Astley Cooper. Dewitt, Erichsen, Gross and Ashurst, on the

contrary, all spoke more or less favorably of it. It was doubtless true that it would fail in a certain proportion of cases, but nevertheless Dr. Hamilton could not but regard it as a fact that this method, in conjunction with judicious taxis, gave better results than any other at present known to science. It had been offered as an objection to it that the inverted posture would be likely to do harm by exciting inflammation; but this held true much more in regard to taxis than it. He had never known it to give rise to pain; while this could not always be said of taxis. In the early stage of strangulation, withdrawal of blood from the part was undoubtedly of service, and it was then that leeching, the application of ice, etc., might prove useful; but if this were the case of all, the more benefit would the inverted position be. There was also this additional advantage about it, that there was no danger whatever of its being followed by gangrene, which had been known to result from the application of ice when maintained for too long a period. There was never, really, any need to keep up the use of ice long, however, since if it did not act promptly there was no hope of its doing any good at all.

After a careful consideration of the subject, and an extensive practical experience in regard to it, Dr. Hamilton's conclusions were as follows:

1. Hernial apertures are not under the control of the muscles.

2. Posture does not relax the apertures when the seat of the hernia is in the sac itself, nor when it is at the internal ring in inguinal hernia.

3. Neither warmth nor cold, nor any other sort of local application, are capable of relaxing these apertures.

4. Neither do chloroform or other anæsthetics affect hernial apertures, except, perhaps, in cases where the hernia is very recent.

5. In short, hernial apertures can seldom be affected at all by any means brought to bear upon them, whether local or general; but this is not requisite for relief, since the strangulation is not the result of contraction of these apertures, but of the pressure of the distended hernia upon them.

A second series of conclusions in regard to the postural method of treatment were as follows:

1. Taxis is of prime importance.

2. Internal traction is only second to this in value. It is to be effected by securing the paralysis of the abdominal muscles and exciting peristalsis in the intestine.

3. Chloroform, hot-baths, and other similar agents are the best means for accomplishing muscular relaxation, peristalsis, and anti-peristalsis.

4. Ice can only relieve the "button-holing" when this is due to congestion, and when it is applied very early. Opium is also of a somewhat limited application.

5. Emetics may be of service by causing an upheaval of the viscera, and also, probably, by exciting peristalsis.

6. Purgatives act by causing peristalsis above, and anti-peristalsis (sometimes) below the seat of stricture.

7. Stimulating enemata and enemata of tobacco also induce peristalsis, and are both direct and indirect in their effects.

8. All positions of the patient are beneficial in which the viscera are drawn upward; and that is likely to be of the most service which causes the most efficient inward traction, at the same time that it does not interfere with the application of taxis.

Prof. Alfred C. Post being called upon to open the discussion, said that the strangulation was due to a want of proportion between the size of the canal and of the protruded parts, and he agreed with the author of the paper in the statement that it was not the result of contraction of the apertures, but rather of the pressure of the distended mass upon the apertures. It was a well known fact that hernias did not, as a rule, become strangulated when they were recent. There was one variety, however (not to speak of traumatic hernia), in which the strangulation occurred simultaneously with the hernia itself. This was the congenital form, in which the *tunica vaginalis*, owing to a want of adhesion between its sides, remained open above, and so continuous with the abdominal cavity until adult life. Many years ago the first case of this kind which had been recorded in New York came under his care at the New York Hospital. It occurred in a seaman in consequence of his straining himself while working at the capstan, and the condition had lasted for three days when he was brought to the hospital. There was a tumor in the rectum which resembled very closely the ordinary swelled testicle, and there was a good deal of discussion among the surgeons in regard to the diagnosis. Of the six or eight who saw it, no one agreed positively with him (Dr. Post) in the opinion that it was a strangulated congenital hernia.

Dr. Valentine Mott refused to accept the statement of the man that the trouble originated from a strain, and believing that it was really due to a blow from a capstan-bar, pronounced it a case of traumatic swelled testicle. Notwithstanding this opinion, however, Dr. Post performed an exploratory operation, when his diagnosis was confirmed; but the interference was too late, and death soon resulted from peritonitis. He was told that, in speaking of the case afterward, before his class, Dr. Mott stated that he himself had *judged* wrong, and that a certain young surgeon had *guessed* right. Prof. Knight, of New Haven, also told him of a similar case, and he mentioned this variety of strangulation on account of the bearing which it had on the question of operation.

While in recent hernias the apertures were small, in the old ones they had become large; but still at the time of strangulation the protruded part increased in size, out of proportion to even these enlarged apertures. As regards the matter of reduction, he thought that there was no question about the advantage of the pulling process over one of pushing; just as it was much easier to pull a large thread through the eye of a needle when one had once gotten hold of the end of it, than it was to push it through at first. Some years ago a case of ordinary strangulated hernia was brought to the New York Hospital, and Dr. Kearney Rodgers was about to operate before a class of students, when he (Dr. Post) asked that he might first try the effect of inward traction. A stout man was directed to raise the patient's hips upon his back, by carrying his knees across his shoulders, when in a few minutes the hernial tumor entirely disappeared. Since then he had seen many similar instances. He did not wish to throw any discredit upon the method of taxis, however, as this was often of the greatest assistance, in conjunction with the postural treatment.

When the protruded part was distended with gas, acupuncture was often of the highest service; and when there was congestion which prevented the return of the intestine, local depletion was demanded. In this connection he would relate another case that occurred under his notice in the New York Hospital. On the day that the late Dr. Ives was buried, a patient was brought in with strangulated inguinal hernia. As the man was suffering a good deal of pain, and there

appeared to be considerable congestion about the part, he applied some leeches before going out to attend Dr. Ives's funeral, expecting to operate on his return. When he came back in a couple of hours, however, he found that spontaneous reduction had occurred.

On motion of Dr. HOWE, the further discussion of the paper was postponed to a special meeting to be held at the call of the Chair; and after attending to some unfinished business the Academy then adjourned.

# Correspondence.

## THE MONUMENT TO EPHRAIM McDOWELL.

*Its Dedication in Danville, Ky., on May 16th.*

ORATION BY SAMUEL D. GROSS, M.D., LL.D., D.C.L., OXON.

The letters read, speeches made, and other incidents of the occasion.

(Special correspondence of THE MEDICAL RECORD.)

THE Kentucky State Medical Society held its annual session in Danville, commencing on May 13th, and continuing through three days. The meeting was one of the largest the Society has ever held, more than two hundred doctors from the State and elsewhere being in attendance.

The chief event of the meeting was the dedication of the monument to Dr. Ephraim McDowell, the Father of Ovariotomy, who performed his first operation in Danville in 1809. The idea of the monument was conceived by the late Dr. John D. Jackson, of Danville; but it was chiefly by the exertions of Dr. Lewis McMurtry, his successor, and Dr. Turner Anderson, that it was carried out. The subscriptions to the funds were made largely by the medical profession of Kentucky.

The monument is a handsome granite obelisk, thirty feet high, bearing the several inscriptions:

"Ephraim McDowell, M.D., born in Rockbridge County, Va., Nov. 11, 1771; came to Kentucky in 1782; attended the University of Edinburgh in 1793 and 1794; located at Danville in 1795; performed his first ovariotomy in Danville in 1809; died in Danville, June 25, 1830."

"To the memory of Ephraim McDowell, who, in inaugurating a great surgical operation, became a great benefactor to his race."

"Erected by the Kentucky State Medical Society, 1879."

"Honor to whom honor is due."

The monument stands in the old graveyard at Danville, to which the remains of McDowell, now resting in a field on his old homestead, near the town, will soon be brought.

Dr. Washington L. Atlee, of Pennsylvania, had accepted the invitation to deliver the oration upon the occasion of unveiling the monument. Upon his death, Dr. McMurtry, the Chairman of the Committee of Arrangements very fittingly invited and secured Dr. Samuel D. Gross, of Philadelphia, to perform that duty.

The dedicatory exercises were held in the Presbyterian Church of Danville, on the evening of May 14th. The edifice, which is a very large one, was completely filled by the members of the Society, and numerous visitors from the community, which is one of great culture, as well as by visitors from abroad, attracted by the fame of the orator and the interest of the occasion.

Besides Dr. Todd and other officers of the Society, there were seated on the stage the Governor of Kentucky, James McCreery; J. Stoddard Johnson, the Secretary of State; Dr. Kimball, of Massachusetts; the ovariotomist, Dr. L. P. Blackburn; Dr. D. W. Yandell, Dr. Lewis A. Sayre, the President of the American Medical Association; Dr. Dunlop, Dr. Edward Richardson, Dr. Lewis McMurtry, Dr. R. O. Cowling, Dr. V. P. Gibney, and others.

Dr. McMurtry introduced Dr. Gross as one needing no introduction from a Kentucky audience, and he was received with great enthusiasm.

The delivery of Dr. Gross's oration occupied one hour and a quarter, and was read with great effect by its venerable author. Though the subject was necessarily technical at times, it was received with marked attention by the mixed audience. It is the opinion of professional judges that the McDowell oration is one of Prof. Gross's most masterly efforts, ranking fully with, or surpassing his memoir upon Robley Dunglison, which had been considered among the best of his many contributions in this field of literature. It must hereafter be looked upon as the official record of McDowell's actions and the history of the operation which he introduced. The Kentucky State Medical Society has provided for the immediate publication of a memorial volume of the dedicatory exercises, in which the address will appear in full.

At the close of Dr. Gross's oration, Dr. Lewis A. Sayre, of New York, made a few remarks, in which he said that not only as a private member of the medical fraternity, but as the President of the American Medical Association, he had come to Danville to represent the profession of the United States upon the occasion when a monument to McDowell was to be dedicated. He would not attempt to add to the words of the great orator of the evening, but would simply hope that McDowell's example, and the monument erected to his memory, would stir others to great deeds for the benefit of humanity.

Succeeding Dr. Sayre, Dr. D. W. Yandell read selected letters from a number which had been sent to Dr. McMurtry and himself, in answer to invitations to be present upon the occasion of the memorial exercises. Among these were letters from T. Spencer Wells, Knowlsby Thornton, T. Gaillard Thomas, T. G. Richardson, Theophilus Parvin, Horatio Storer, Thomas Bryant, and Oliver Wendell Holmes.

Dr. R. O. Cowling, of Louisville, had been appointed by the State Medical Society to present to Dr. Gross a memento of McDowell and of the occasion which had brought him to Kentucky.

The object chosen was the knocker which had hung on the door of the great ovariotomist during his residence in Danville. It is in itself a handsome work of art—an antique bronze of very handsome pattern. It has been preserved in the town during the past fifty years as an object of curiosity, and was happily secured for the State Society by the Committee of Arrangements from its owner, Dr. Dunlop, the newly elected President, to be presented to Dr. Gross in the name of the Society on the present occasion.

DR. R. O. COWLING'S ADDRESS.

DR. COWLING said:

*Dr. Gross:*—The Kentucky State Medical Society thanks you for the beautiful oration you have just delivered upon Ephraim McDowell. Surely hereafter, when history shall recall his deeds, and dwell upon his memory, it shall relate how, when he was fifty years at rest,

the greatest of living surgeons in America came upon a pilgrimage of a thousand miles to pronounce at his shrine the noble words you have spoken.

The Society does not wish that you should return to your home without some memento of the occasion which brought you here, and which shall tell you also of the admiration, the respect, and the affection it ever bears for you.

I have been appointed to deliver to you this simple gift, with the trust and belief that it will always pleasantly recall this time and be a token of our feelings towards you. We wished to give you something directly connected with McDowell, and it occurred to us that this little memento of the dead surgeon would be most appropriate. It is only the knocker which hung upon his door, but it carries much meaning with it.

The sweetest memories of our lives are woven about our domestic emblems. The hearthstone around which we have gathered; the chair in which our loved ones have sat; the cup their lips have kissed; the lute their hands have swept—what jewels can replace their value? Do you remember the enchantment that Douglas Jerrold wove about a hat-peg? How at the christening of the child they gave it great gifts of diamonds, and pearls, and laces, and when the fairy godmother came, and they expected that she would eclipse them all with the magnificence of her dowry—how she gave it simply a hat-peg? They wondered what good could come of that. The boy grew to become a man. In wild pursuits his riches were wasted, and at last he came home and hung his hat upon that peg. And while the goodman's hat was hanging there, peace and plenty, and order and affection sprang up in his home, and the hat-peg was, indeed, the talisman of his life.

I wish that the magician's wand were granted me awhile to weave a fitting legend around this door-knocker, which comes from McDowell to you, Dr. Gross. There is much in the emblem. No one better than you knows how good and how great was the man of which it speaks. It will tell of many summons on mercy's mission which did not sound in vain. Ofttimes has it roused to action one whose deeds have filled the world with fame. A sentinel, it stood at the door way of a happy and an honorable home, whose master, as he had bravely answered its signals to duty here below, so, when the greater summons came, he as trustfully answered that, and laid down a stainless life.

It belongs by right to you, Dr. Gross. This household genius passes most fittingly from the dearest of Kentucky's dead surgeons to the most beloved of her living sons in medicine. She will ever claim you as her son, Dr. Gross, and will look with jealous eye upon those who would wean you from her dear affection.

And as this emblem, which now is given to you, hangs no longer upon a Kentucky door-way—by this token you shall know that all Kentucky door-ways are open at your approach. By the relief your skill has wrought; by the griefs your great heart has healed; by the sunshine you have thrown across her thresholds; by the honor your fame has brought her; by the fountains of your wisdom, at which your loving children within her borders have drunk—the people of Kentucky shall ever open to you their hearts and homes.

The applause which greeted the remarks of the speaker, and the sympathetic attention with which they were received, showed that he had thoroughly interpreted the feelings of the assemblage.

Dr. Gross appeared much affected during the delivery of the address, and at its conclusion, in a most feeling manner, made his reply.

### The Reply of Dr. Gross.

I am much overcome, gentlemen of the Kentucky State Medical Society, by this mark of your approbation. I am not the great man your speaker has declared me to be; but I gratefully appreciate the feelings which have prompted his words.

I claim to be but an earnest follower of surgery, who, during a period which has now extended beyond half a century, has striven, to the best of his ability, to grasp its truths and to extend the beneficence of its offices. I am not to be placed by the side of McDowell for what I may have done in our art; but if this reward be a measure of the appreciation I hold for the good-will of the people in this commonwealth, I may claim it for that.

The years of my life which I passed in Kentucky represent the most important era in my career. They witnessed many of its struggles, and much of the fruition of its hopes. To the warm hearts of the many friends it was my good fortune to secure within these borders, do I owe it that those struggles were cheered and rewards beyond my deserts were secured.

I take this emblem now offered me as the most valued gift of my life. It shall be received into my home as a household-god, environed by all the memories of goodness and greatness to which your speaker has referred, and, above all, recalling this scene. Dying, I shall bequeath it among my most important possessions to the family I may leave, or, in failure of that, to be preserved in the archives of some society.

I thank you again, gentlemen, and I wish I were able to tell you better how much I do thank you.

At the conclusion of Dr. Gross's remarks, the meeting adjourned amidst great cheering, and the members of the Kentucky State Medical Society crowded around Dr. Gross, and, with many an embrace, testified to the warmth of their individual feelings towards him.

## RAPID LITHOTRITY WITH EVACUATION.

My Dear Van Buren:—I have only just seen your interesting communication on "Rapid Lithotrity with Evacuation," in the N. Y. Medical Record of March 22, 1879, and I venture to send you direct a brief remark or two thereupon.

First. I observe that you speak of Dr. Keyes's modification of my lithotrite, by which it will do its work without any clogging whatever, and add that "my (Sir H. T.'s) objection that the original Bigelow's instruments were enormous and unwieldly is therefore not tenable." Let me just say, that my objection to the enormous lithotrites of Bigelow remains, of course, as strong as ever, and I am only too pleased to hear that you have recognized the same evil and have remedied it with lighter instruments. We join, therefore, —and I am sure it could not be otherwise—in shunning large unwieldy lithotrites.

My second remark relates to your adoption of some observations in the *Lancet* regarding what the writer calls "abandonment of my old positions;" a matter, after all, of no very great importance. The observation was an editorial one, and designed to be adverse criticism of myself personally, not of my mode of operating. I felt it, therefore, useless on my part to write a rejoinder. But the whole criticism was founded on the writer's overlooking a single circumstance in connection with the subject, which I do not expect you or any one else to discover, without reference to the context. But I desire you, as one of my oldest friends on your side of the Atlantic, to be rightly informed, even on such a matter as this. In the passage from my lectures, quoted by the critic, as recommending that the aspirator should not be too much employed, I was expressly describing *lithotrity without the use of*

*an anæsthetic agent;* and at the close of this section you will find the following passage, which, no doubt, he did not observe: "If, however, you find it necessary to execute a large crushing, *and the patient is, as he then ought to be, unconscious*, it is certainly desirable to remove the débris and small fragments, and relieve the patient of the pain and irritation they will produce in passing naturally; and this apparatus is then invaluable for the purpose."*

But I had at that time already commenced to use ether, which was coming again into fashion here, never liking chloroform, and consequently used the aspirator much more freely. And thus I say, in that same edition: "Other means, Clover's apparatus, for example, which is the best of all, may be employed in a good many cases. I use it more than I formerly did, and with advantage."

Lastly, my dear Van Buren, pray forgive my saying that these terms of abandonment of position, change of front and strategical position, etc., adapted as they are to military men, whose sole business is to maintain certain lines they have held forever and must at the peril of their lives maintain, do not accord with the aims of men who "live and learn." Once more let me quote from one of my first lectures a few words which, I think, I need never change, although others may be changed, if I live and work, as I hope to do, some time longer: "You may rely upon it, with regard to any subject whatever, whether politics or religion, or our own proper profession, if we hold the same opinions at forty years of age as we did at twenty—and, perhaps, looking forward, I may say, if we hold the same opinions at sixty as we do at forty, we live to very little purpose. It is an error to look for a life-long 'consistency' in matters of opinion from men who think for themselves, in whatever department their teaching may be. You must expect them to progress, or they will be bad teachers—just as I hope you are progressing now."

By the way, I should like very much to see and try a Keyes' modified lithotrite. I wonder whether he would look me out a good medium specimen, such as he would like me to try. I will gladly be his debtor. Believe me, my dear Van Buren, . . .

HENRY THOMPSON.

P. S.—A new edition of the same lectures is now going through the press, in which these subjects are much more fully treated. I hope to send you the first copy in a week or two.

LONDON, May 1, 1879.

## THE DWIGHT INQUEST.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In your last week's number, under the heading of "The Dwight Inquest," you refer to the opinion of the undersigned, who were his physicians, and use the following language: "The theory of congestive chill was not very strongly supported by the evidence, and only negatively so by the autopsy. Pernicious ague is often, indeed, a boon to those perplexed by obscure and malignant symptoms, as well as a scapegoat for inefficient observation. It is sometimes equally difficult to swear that it has or has not existed, and perhaps on this account it served a tolerable purpose in the present case."

You will permit us most emphatically to repel the imputation you cast upon us. We have had no occasion to make a "scapegoat" of pernicious ague, nor to resort to any subterfuge whatever in relation to the case of Col. Dwight. He was under our care and treatment for thirty-five days, during which time his disease was observed carefully and anxiously. Malaria, as an essential element in it, was early recognized and the proper treatment resorted to. It consequently could have been no afterthought to attribute his death to the pernicious influence of malarial poison.

Dr. Delafield made no issue with us. He expressed no opinion on his part, nor did he dispute ours. With the carefulness which should characterize all pathological investigations, he simply reported that to *his* mind there was not evidence of malarial disease; and there he courteously and considerately left it.

If, as you say, "the whole affair reflects anything but brilliancy upon the profession and the performers," we beg leave to deny any agency on our part in producing such a result. There was no diversity of opinion with us who had the case of Col. Dwight in charge, nor are we conscious of a single act or opinion in the matter that would derogate from the standing of the profession in general or of our own. We were compelled to defend our diagnosis and treatment before a coroner's jury, composed entirely of medical men, the coroner also being a regular practising physician, and we are quite confident of our ability to sustain it anywhere.

When the time arrives that it is proper so to do, the profession shall have the case with its interesting points through the columns of some medical journal, and we will quietly abide the good sense and sound judgment of our professional peers.

GEO. BURR, M.D.,
J. G. ORTON, M.D.,
DAN. S. BURR, M.D.

BINGHAMTON, May 19, 1879.

[We did not intend to cast imputation upon any one, but, from the facts then and up to this time in our possession, we are of the same opinion still.—ED.]

# New Instruments.

## A COMBINED GYNÆCOLOGICAL TABLE AND INSTRUMENT CASE.

BY FRANK P. FOSTER, M. D.,

PHYSICIAN FOR DISEASES OF WOMEN TO THE OUT-PATIENT DEPARTMENT OF THE NEW YORK HOSPITAL.

FOR the past two or three years I have used with great satisfaction an examining table, the chief features of which may be described as follows: when not in use it forms a closed case three feet long, two feet wide, and about three feet in height—forming rather a handsome article of furniture, not at all suggestive of the purposes for which it is chiefly meant. The greater portion of it serves to hold instruments and other appliances—one-half of this portion being taken up by a series of drawers, and the other half forming a closet.

The upper part of the table consists of a couch folded together somewhat after the manner of a bagatelle table. The central section of this couch extends the whole length of the closed case—three feet. To either end of this portion is hinged a lid one foot wide, making the couch, when opened for use, five feet long, furnished with hair cushions covered with

* Clinical Lectures on Diseases of the Urinary Organs. By Sir H. Thompson, etc. Given in 1875-6. Fourth edition. London: Churchill, 1876.

leather. In this state it is a simple horizontal couch, of convenient height and dimensions for examining patients of either sex in the reclining posture. (See Fig. 3.) The patient's head may rest upon a small separate cushion, which cushion, when the table is not in use, is contained in a third lid, which serves to fill up the space between the two hinged lids above referred to. At the rear of the table is a hinged step, (Fig. 1, A), resting, when in use, on swinging brackets.

For an examination with the patient lying on the back, the central portion of the couch may be raised to any convenient pitch, as shown in Fig. 1. The stirrups, or foot-supports, are simply inserted into sockets in the frame of the couch, so situated that the distance between the feet may be varied according to circumstances. The shape of the stirrups is correctly shown in Fig. 1—incorrectly in Fig. 2.

For an examination in Sims's posture, one end of the cushion upon which the hips rest (the end corresponding to the operator's left hand, as he faces the patient, is raised, so that that portion of the couch slopes towards the right. Partial pronation of the body is thus facilitated, without the unpleasant effects sometimes produced by a table having a lateral pitch throughout its whole length. Moreover, from the hips resting at a higher level than the trunk, a slight lateral bending of the spine is caused, bringing the vagina more nearly parallel with the rays of light which are depended on for illumination—reaching the room, as they generally do, from a point somewhat higher than the table. In an examination of this sort, the stirrup for the right foot projects from the side of the table—the one for the left foot, diagonally from the corner, as shown in Fig. 2.

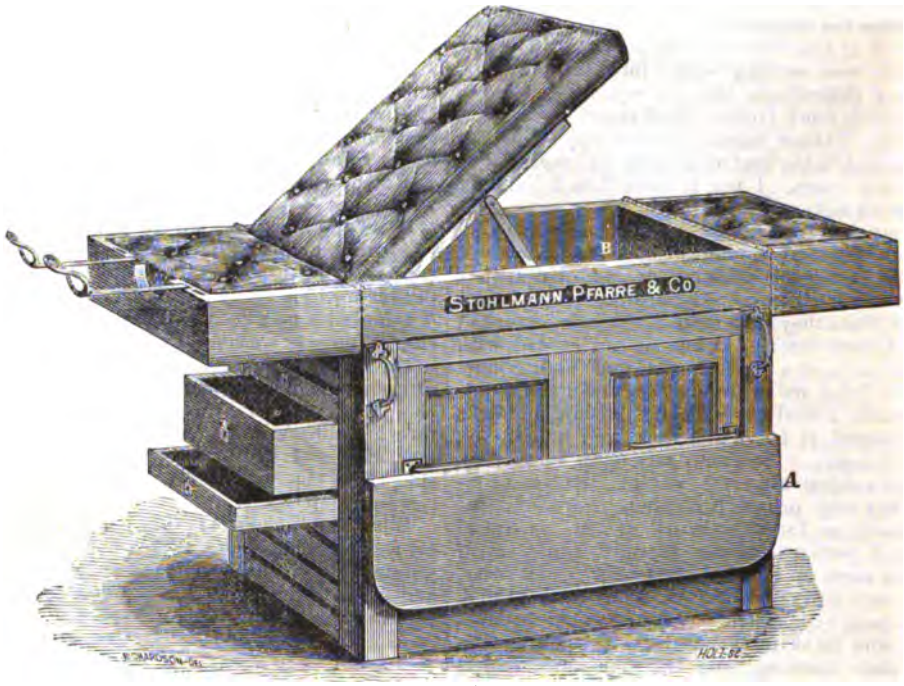



Fig. 1.

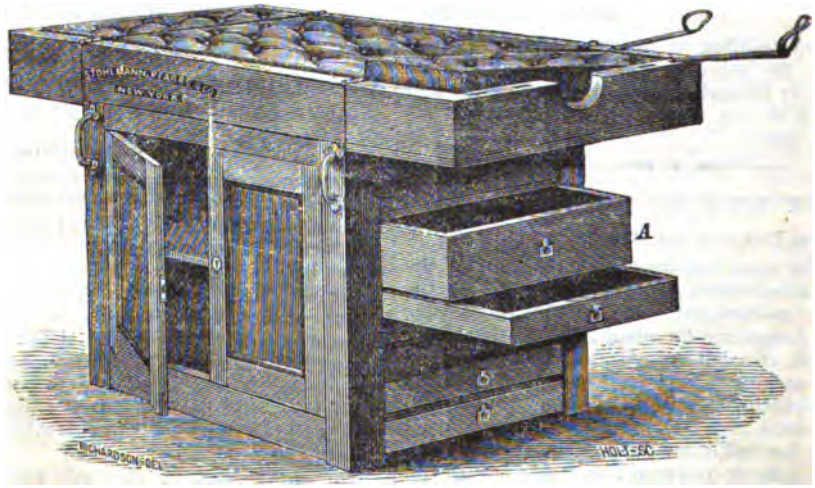



Fig. 2.

For the knee-elbow posture, the patient's knees may rest upon the step, the middle lid, with its cushion, being interposed, as shown in Fig. 3. For the knee-chest posture, the table is arranged in the main as shown in Fig. 1, but the middle lid, with its cushion, is placed at B. The patient's knees rest upon this, and the trunk upon the declivity formed by the central portion of the couch.

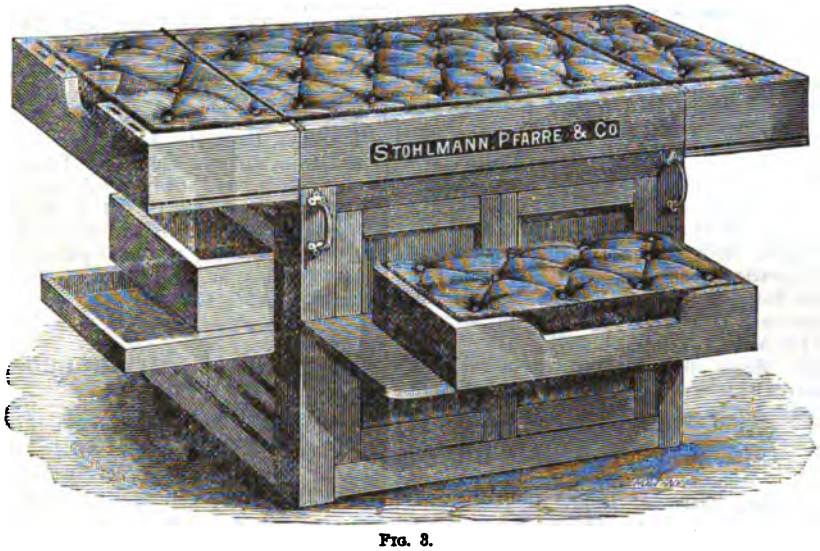



FIG. 3.

The deep drawer (Fig. 2, A) may be conveniently partitioned into compartments for bottles, jars, cotton wads, a vessel of warm water, etc.; the others are for instruments. From the fact that the end of the couch overhangs the body of the table, these drawers may be opened without obliging the operator to retreat from the patient.

This brief description may be supplemented by viewing the table, which is made by Messrs. Stohlmann, Pfarre & Co.

## TENACULUM SCISSORS.

By GEORGE E. ABBOTT, M.D.,

NEW YORK.

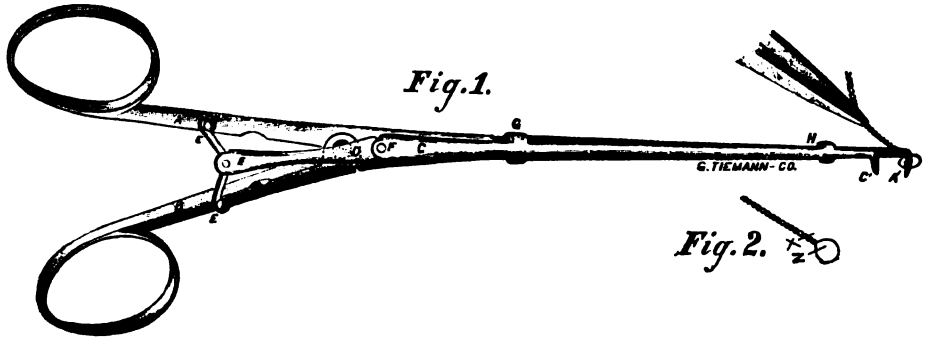
A FEW weeks since, while Dr. T. Addis Emmet was removing some sutures from a perineum upon which he had previously operated at this hospital, he spoke of the desirability of an instrument that will cut the sutures more accurately than can be done with the common scissors.

In certain cases the sutures are so deeply imbedded that the surgeon must be guided entirely by the sense of touch in his efforts to cut the wire with the common scissors, and under these circumstances even the most careful operator will at times cut the shaft of the suture, as at × in Fig. 2, instead of the loop at *Z*, and the succeeding search for the little loop is then very annoying. In one case, while in doubt whether he had the loop or the shaft between the blades of the scissors, the doctor took a tenaculum, introduced it into the loop, drew it forward slightly, and then cut the wire.

It occurred to me that the tenaculum and scissors might be combined, and with one or two suggestions from my friends this idea has been carried into effect in the tenaculum scissors represented below. The instrument, which was made by Tiemann & Co. of this city, has been tested by Dr. Emmet, and found to work very successfully.

*A A'* represents one handle and blade of the scissors; *B*, the other handle jointed to *A* at *D*. *C C'* represents the other blade moving upon *A A'*, and attached to it by means of the *U* clamps *G H*, but detachable from it for purposes of cleaning. *E E E* is a "*Y* joint" connected to the handles *A* and *B*, and to the blade *C C'* at *F*. By closing the handles *A* and *B* the "*Y* joint" will throw the blade *C'* forward, cutting upon *A'*.

While operating, the shaft of the suture may be used as a director if necessary. The blade *A'* is engaged in the loop of the suture, which is then cut in the manner described above. Before cutting, however, the



scissors should be withdrawn slightly, when, if the blade be upon the shaft only, as at × in Fig. 2, it will slip upward and may be withdrawn entirely; but if it is engaged in the loop it cannot be withdrawn, and the suture may be cut correctly, as at *Z* in Fig. 2.

This principle might also be used for scissors to operate in deep or narrow cavities, the blades being bent or curved in any desired direction.

WOMAN'S HOSPITAL, N. Y., April 14, 1879.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from May 11 to May 17, 1879.*

MCPARLIN, THOMAS A., Major and Surgeon. Relieved from duty in Department of the East, and assigned to duty as Attending Surgeon in New York City. S. O. 111, A. G. O., May 10, 1879.

PAGE, CHARLES, Major and Surgeon. Relieved from duty in Department of the Platte, and assigned to duty as Post Surgeon in Fort Monroe, Va., and to report by letter to Comdg. General, Dept. of the East. S. O. 114, A. G. O., May 14, 1879.

MOORE, JOHN, Major and Surgeon, when relieved by Surgeon Smith to proceed to New York City, and on arrival report by letter to the Surgeon-General. S. O. 114, C. S., A. G. O.

SMITH, J. R., Major and Surgeon, when relieved from duty at Fort Monroe, Va., by Surgeon Page, to report to the Comdg. General, Dept. of Texas, for duty as Medical Director. S. O., 114, C. S., A. G. O.

TOWN, F. L., Major and Surgeon. Having reported in person at these headquarters, pursuant to S. O. 58, C. S., A. G. O., assigned to duty at Fort Walla-Walla, W. T. S. O. 49, Dept. of the Columbia, May 1, 1879.

WOLVERTON, W. D., Major and Surgeon. Relieved from duty in Dept. of Dakota, to proceed to New York City, and on arrival report by letter to Surgeon General. S. O. 114, C. S., A. G. O.

GIBSON, J. R., Major and Surgeon. Relieved from duty in Dept. of the Platte, to proceed to New York City, and on arrival report by letter to the Surgeon-General. S. O. 114, C. S., A. G. O.

CARVALLO, C., Capt. and Asst. Surgeon. Relieved from duty in the Dept. of the Missouri, to proceed to Washington, D. C., and on arrival report by letter to the Surgeon-General. S. O. 114, C. S., A. G. O.

MOFFATT, P., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the East, and assigned to duty in the Dept. of the Columbia. S. O. 114, C. S., A. G. O.

CLEARY, P. J. A., Capt. and Asst. Surgeon. Relieved from duty in the Dept. of the Missouri, to proceed to New York City, report to the Army Medical Board for examination for promotion, and upon its conclusion report by letter to the Surgeon-General. S. O. 114, C. S., A. G. O.

MUNN, C. E., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the Platte, to proceed to Boston, Mass., and on arrival report by letter to the Surgeon-General. S. O. 114, C. S., A. G. O.

DICKSON, J. M., Capt. and Asst. Surgeon. Relieved from duty at Fort Klamath, and assigned to duty at Fort Stevens, Oreg. S. O. 47, Dept. of the Columbia, April 29, 1879.

EWEN, C., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the East, and assigned to duty in Dept. of the Missouri. S. O. 114, C. S., A. G. O.

PAULDING, H. O., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of Dakota, to proceed to Washington, D. C., and on arrival report by letter to the Surgeon-General. S. O. 114, C. S., A. G. O.

ADAIR, G. W., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of Texas, to proceed to Utica, Mich., and on arrival report by letter to the Surgeon-General. S. O. 114, C. S., A. G. O.

SEMIG, B. G., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of the South, and assigned to duty in the Dept. of the Platte. S. O. 114, C. S., A. G. O.

WILCOX, T. E., 1st Lieut. and Asst. Surgeon, upon expiration of his present leave of absence, to proceed to Vancouver Barracks, W. T., and report to the Comdg. General Dept. of the Columbia for assignment to duty. S. O. 114, C. S., A. G. O.

TURRILL, H. S., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of Texas, to proceed to Boston, Mass., and on arrival report by letter to the Surgeon-General. S. O. 114, C. S., A. G. O.

LA GARDE, L. A., 1st Lieut. and Asst. Surgeon. Relieved from duty in the Dept. of the East, and assigned to duty in the Dept. of the Missouri. S. O. 114, C. S., A. G. O.

## Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending May 17, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| May 10, 1879. | 0 | 3 | 143 | 1 | 46 | 25 | 4 | 0 |
| May 17, 1879. | 0 | 11 | 159 | 0 | 26 | 31 | 1 | 0 |

DELEGATE TO THE BRITISH MEDICAL ASSOCIATION.—Dr. George M. Beard, of this city, will represent the American Association for the Cure of Inebriates at the next meeting of the British Medical Association to be held in the city of Cork, Ireland, beginning August 5, 1879.

AMERICAN SURGICAL SOCIETY.—At Atlanta, during the meeting of the American Medical Association, steps were taken to organize an American Surgical Society. The movement was initiated by Prof. S. D. Gross, of Philadelphia, and a committee was appointed to report a constitution and by-laws. Dr. Gugas, of Georgia, Chairman; Dr. Watson, of New Jersey, Secretary.

THE THIRTIETH ANNUAL SESSION of the Pennsylvania State Medical Society was held in Chester, Pa., on Wednesday, Thursday, and Friday last. Dr. Andrew Fleming, of Allegheny City, delivered the Address in Medicine; Prof. Ellerslie Wallace, of Philadelphia, the Address in Obstetrics; Dr. C. T. Hunter, of Philadelphia, the Address in Surgery; Dr. R. A. Cleemann, of Philadelphia, the Address in Hygiene; and Dr. James A. Reed, of Dixmont, the Address in Mental Disorders. Committees, specially appointed, reported on "Medical Legislation," on "State Board of Health," on "Female Assistant Superintendents in Female Departments of Insane Asylums," and on "Epileptics who have become Insane." Our next issue will contain a full report of the proceedings in detail.

# Original Lectures.

## SECONDARY DEGENERATION OF THE SPINAL CORD—TROPHIC DISEASES OF THE SPINAL CORD.

A Clinical Lecture Delivered at Charity Hospital,

By A. McLANE HAMILTON, M.D.,

Visiting Physician to the Hospital for Epileptics and Paralytics.

(Reported for The Medical Record.)

### Lecture II.

Gentlemen:—I propose first to-day to present a number of cases which illustrate certain changes consecutive to brain disease, and known as *secondary degeneration of the spinal cord.*

You are doubtless already familiar with certain appearances presented by this class of patients, for disorders of exaggerated motility as the result of hemiplegia are anything but rare. There are several varieties of very striking post-hemiplegic disorder which follow a large effusion or cerebritis, and may occur either as a result of congenital disease or as a subsequent feature of cerebral hemorrhage.

The first patient presented to-day is a baby eleven weeks old, who has a left hemiplegia of intra-uterine origin. It is rare that an opportunity is offered to see a patient at this stage of the disease from which he is suffering in which the trouble is recognized perfectly. You will notice that the limbs upon the left side are powerless, flaccid, and limp, and while he kicks vigorously and gesticulates violently with the right leg and arm, the extremities on the left side remain stationary. It is also noticed that the skin of the affected side is cold, and even at this stage the muscles are found to have undergone a commencing change. A hemiplegia of this kind, as the result of traumatic cerebral hemorrhage, may be produced by pressure incident to forceps delivery, although the skull of the fœtus, as we all know, can endure a great amount of pressure without injury to its delicate contents.

But it occasionally happens, as in this case, that a hemorrhage into the meninges occurs, and a condition is developed which resembles in many respects the adult hemiplegia, but the prognosis is very unfavorable. For in many of these cases a form of secondary degeneration is apt to supervene, and the child becomes deformed, distorted by contractures, and almost helpless, as is illustrated in the next case I show you, a girl fifteen years old.

In this patient you will observe a variety of hemiplegic disorder, which might be called post-paralytic chorea, or to the movements of the hands the term athetosis might be applied. In this case the difficulty is congenital, and there has been, probably, a large cerebral hemorrhage, with descending degeneration, which has involved, to a very decided degree, both lateral columns. You will observe that her feet are distorted and present the appearance seen in an aggravated case of talipes varus; that there is a spastic rigidity which cannot be overcome by ordinary force; that both legs as well as the arms, and also the face, are the seat of jactitations which are decidedly increased when she is spoken to or required to perform any voluntary action. When I hold her wrist, you will observe that there are alternate movements of flexion and extension of the fingers. These movements she is entirely unable to control. The movements of the muscles of the face resemble somewhat those seen in chorea, but are associated with trembling, which is not the case in the latter neurosis. When I tap any of the tendons of the upper or lower extremities there is a marked increase of the tendon reflex. There are, as yet, no sensory disturbances; the functions of the abdominal organs are apparently normal, and her general condition is very good. None of these movements can be said to be essentially choreic, although the disease, doubtless, is very often confounded with that common disorder of early life.

The next patient, a man thirty years old, I present to illustrate a more advanced stage of this condition beginning in early infancy. His deformity is unilateral. You will observe that his entire left side is terribly distorted; that his mouth is drawn to one side; and that his extremities are in a constant state of violent movement. In none of the cases already shown you has there been any muscular atrophy, except that which might arise from the contracted condition of the limb; but there are cases which resemble these in which there is unilateral trouble due to want of development. In this case, E. B., a woman, who has been an inmate of the hospital for twenty years, you will observe a condition which is in striking contrast, in many of its features, with that seen in the other patients, although it might be taken as an example of congenital spastic hemiplegia (hemiplegia infantilis spastica). This girl presents a very marked illustration of unilateral atrophy. A careful measurement shows that the arm and hand, as well as the lower extremity, are only about one-half the size of their fellows, while the same side of the trunk is undeveloped and presents a marked difference in size. In this case, undoubtedly, the opposite side of the brain is atrophied, as in the cases reported by Van der Kolk, and more recently by Taylor, and in addition to the bodily deformity there is low mental development and epilepsy, and the convulsions begin in the paralyzed members. This then is one of the kind of cases described by Bourneville as partial epilepsy. In the next patient may be observed a condition which usually appears later in life, and as the result of a cerebral lesion; there is a destructive process which descends through the tracts of white matter across the pyramids, and down into those parts of the lateral columns to which I alluded at my last lecture as the columns of Fleischig, or the crossed pyramidal columns, and though this is an ordinary termination of certain brain lesions of adult life, it resembles very closely the congenital degeneration. Lesions affecting the internal capsule have been found to be those most likely to be followed by descending degeneration of this kind, and as a consequence many of the symptoms previously described are found. The first indication (often overlooked) of such a descending process occurs usually within a very few days or a few weeks after the cerebral hemorrhage, and is preceded by some general symptoms of cerebritis.

Some of the cases are characterized chiefly by marked contractures of the paralyzed members, while in other cases tremor and disorderly movements predominate. The first local signs of the former complication will be pain which shoots down the shoulder and arms of the paralyzed side, while evidences of neuritis are very often discovered by the pain which follows pressure upon the brachial plexus or the median nerve.

Very gradually, but surely, the fingers become flexed, afterward the hand and forearm. In other cases the

elbow is drawn to the side, while in still others the deformity described by Charcot and Strauss as the *contracture-en-flasque*, finally remains. These contractures seem to involve chiefly the upper extremities, but in some cases the degeneration may descend so as to affect the lower as well. As a condition, observed especially in cerebral hemorrhage occurring in young subjects, and as a rare feature of adult hemiplegia, it will be found that there is simply a rigidity more marked at the elbow- and knee-joints, but it is possible by passive motion to flex and to extend the arm and the leg.

With regard to the variety symptomatized by post-paralytic movements, I may say, that such disorders of movement may be exceedingly numerous, partaking either of the tremor of sclerosis, of the jerkings of chorea, or of the continuous athetoid movements described by Gowers. With regard to prevention and treatment of this condition there is not much to be said, and more depends upon the immediate management of the patient who has suffered from cerebral hemorrhage than upon subsequent treatment.

Of course, in spite of all we can do, it is very possible for cerebral softening to take place, arising primarily from inflammation about the clot, especially in portions of the brain where the cerebral blood-supply is limited, such as the region supplied by the middle cerebral artery. In cases in which it is possible to control the occurrence of inflammation about the clot, we can, in most instances, bring our patient through without the development of any secondary changes.

Any increase in the frequency of the pulse and elevation of the temperature should be promptly met with local derivatives and cardiac sedatives. In those cases in which the temperature is high from the beginning, there is reason to fear the existence of extensive softening, and in such we must be prepared for secondary degeneration. If the degeneration does begin, in spite of our precautions, I find that it is unwise to use electricity in any form. I may here state that I have seen post-paralytic conditions which I believe were dependent entirely upon central cerebritis, caused by the injudicious and premature use of electricity.

The actual cautery may be used over nerve-trunks, should there be pain such as has been already alluded to.

I have found it of the greatest benefit to the patient to wrap the limb carefully with cotton-batting, which should in turn be covered with oiled silk. After the contractures have already appeared, but little can be recommended in the way of treatment. Tenotomy is useless unless the deformity greatly affects the comfort of the patient, the flexion of the finger being so great in such instances as to cause the finger-nails to penetrate the palm of the hand.

Electricity is of little avail. Temporary comfort may be given by soaking the limbs ten or fifteen minutes daily in water as warm as the patient can bear without actual suffering, while general hot-baths are recommended. In cases in which the contracture depends more upon spastic tendinous rigidity than upon actual muscular change, this method of treatment offers unusual advantages. I have found that the tremor is best controlled by the use of conium and the avoidance of general excitement.

### TROPHIC DISEASE OF THE SPINAL CORD.

The next class of cases to which I wish to invite your attention are those in which the morbid processes are supposed to be confined to the anterior part of the spinal cord, although their pathology is still a question of dispute.

### PROGRESSIVE MUSCULAR ATROPHY.

The first patient is one who exhibits a very interesting and rare form of progressive muscular atrophy. In addition to the muscular wasting, which is bilateral, there exists disorder of the vaso-motor nerves upon the right side of the body. From the fact that he speaks English imperfectly, and is somewhat stupid, it has been found impossible to obtain a very clear account of his early symptoms, but we will assume that, according to the rule, the disorder began with wasting of the muscles of the hand and the forearm, and subsequently involved the muscles of the arm and of the back. In this case you will observe that the upper extremities are alone affected.

This disease, which begins with atrophy, followed by paralysis, prefers the upper extremities, while another form of trophic disturbance, known as *poliomyelitis anterior*, or clinically as essential spinal paralysis, as a rule, invades the lower extremities, and the paralysis *precedes* the atrophy.

In progressive muscular atrophy the course of the disease is usually very slow, the muscles of the palm of the hand and the adductors of the thumb undergoing atrophy in the beginning, so that the hand deformity remains, which has been called *main-en-griffe*, or "claw-hand."

This patient, you will observe, presents this deformity, and, in addition, there is decided atrophy of the flexors and extensors of the forearms as well as the biceps. When he flexes his forearm you will observe that what there is left of the biceps is but a small, rounded lump, while the tendon stands out prominently.

You will also notice a peculiar tremulous condition of the healthy muscles, and those just beginning to be involved in the morbid process. This very characteristic tremulousness has been called *fibrillary* or *vermicular* tremor. The latter term has been applied because it describes the appearance presented by the irregular contraction of muscular filaments when the skin is struck, as though worms were crawling beneath the integument.

The muscles of the back will probably become next involved in the wasting process, and in one case recently under my observation the scapulæ were so prominent that I could easily place my fists in the deep cavity between them.

It is the rule, in these cases, to discover certain trophic changes affecting the skin and its appendages, so we quite commonly find diseases of the nails, eruptions, and other cutaneous lesions; but this man presents something in addition to these. It has been found that he sweats profusely upon the right side of the body, which, you will observe, is more atrophied than the left, while the left side is quite dry.

By careful experimentation I have found that when ammonia is held to his nose the right eye almost immediately becomes suffused with tears, while the left eye remains almost entirely unaffected.

When salt is placed upon the tip of the tongue an abundant discharge of saliva from the right corner of the mouth occurs almost at once.

Dr. Claddek has painted with cantharidal collodion two spots of the same size upon either side of the chest, and you will observe that upon the normal side only very slight changes have taken place, while upon the right, or affected side, a blister was formed almost immediately, and it has been slow in healing.

The next case which I present is one in which the atrophy is not so pronounced as in the others. The patient has phthisis, which is not an uncommon com-

plication of this and other affections of the spinal cord. The tendency of the morbid process is to extend upward. The larger motor cells in the upper part of the cord, and in the medulla oblongata, are ultimately involved, various disturbances of the lower cranial nerves take place, and the patient finally dies of asphyxia. Sometimes death occurs from glosso-labio-laryngeal paralysis, which by some is supposed to be the same disease process affecting another region of the cord.

The duration of the disease is variable. Some of these patients recover, while in other cases the disease lasts from five to twenty years, the atrophy meanwhile involving fresh groups of muscles with more or less rapidity.

In the private case already referred to, the disease has lasted for two years, and the atrophy has involved nearly all the muscles of the upper part of the body.

In another patient I have recently seen the disease has progressed but very little during the last ten or twelve years.

A combination of symptoms following disease of both the anterior and lateral columns of the cord has been described by Charcot, and for some time the symptoms of primary lateral sclerosis and progressive atrophy were sadly mixed; but if you meet with a patient presenting an early atrophy with preceding loss of power and some rigidity, complicated, perhaps, with tremor and involvement of both upper and lower extremities, the existence of atrophic antero-lateral disease may be suspected.

*Diagnosis.*—The only other trophic diseases with which this can be confounded are certain forms of spinal paralysis, and in young subjects the disease known as pseudo-hypertrophic paralysis, and occasionally it is closely simulated by lead paralysis.

In the first case shown to-day the atrophy was *preceded* by the paralysis, while in the last case the age of the patient precludes any possibility of error in diagnosis. In lead paralysis the atrophy involves all the muscles of one limb if it reaches the stage in which it can be mistaken for the disease under consideration, and there is usually anæsthesia; besides, if you will bear in mind the fact that there are other signs of general plumbic poisoning, I think you will usually be able to make a correct diagnosis.

*Treatment.*—The only remedy with which I am acquainted, which affords any hope of success in the treatment of this class of cases, is electricity, and I prefer the faradic current, when it is possible to produce contractions. If it is not possible to do this, the galvanic current may be employed.

In certain rare cases, if the extensors are atrophied, I have been in the habit of using the rubber muscle, which gives support to the hand, and in that manner have increased the good effect produced by the battery.

### PSEUDO-HYPERTROPHIC MUSCULAR PARALYSIS.

The next patient, a girl 10 years old, is suffering from a disease which is more rare than the preceding, but is one that belongs to the same group. It is the disease known as pseudo-hypertrophic muscular paralysis, first described by Duchenne, and since that time by Continental and American writers; among the latter my friend, Dr. Poore, of New York, who has done much to systematize the labors of others. This child is one of two in the same family, who are affected in this manner; her sister, now at the Randall's Island Hospital, and almost helpless, presents well-marked advanced symptoms of the established disease.

You will observe that she is a well-nourished girl, and, but for the fact that she cannot stand, which is a recent feature of the case, you would hardly suppose that anything was the matter with her; but when she is supported and attempts to walk, her legs are spread apart, and there is a waddling gait, resembling somewhat the movements of a duck.

When her clothes are removed you will observe a peculiar deformity, which is one of the most striking features of the disease; I allude to the lumbar spinal curve. This extreme condition of lordosis gives the child a pot-bellied appearance, while if a plumb-line is held at the seventh cervical spine and the lead is allowed to rest upon the floor, you will notice a degree of anterior spinal curvature which is more excessive than that presented in any disease with which I am acquainted. You will also notice that while her thighs are smaller than they should be, her nates are full, quite hard, and that the muscles of the calf are also indurated in the same way. When the flabby condition of the muscles of the upper extremities is compared with the affected condition of those of the lower extremities, it will be noticed that a curious change has taken place, and you may attempt to pinch the latter, but it is impossible to take such a fold of tissue between your fingers at this locality as elsewhere.

When her stockings are removed, the skin at first presents a mottled pink color, but after it has been exposed to the air, it becomes blue and dusky. This is an appearance of the skin seen in connection with many other trophic nervous disorders. There is, apparently, no disorder of sensibility, and the functions of the bladder and bowels are normal. These facts point to a normal condition of the parts behind the anterior columns. The thigh muscles have undergone decided atrophy, which is not an unusual feature of pseudo-hypertrophic paralysis, and probably increases the appearance of the deformity which, in reality, does not depend upon actual enlargement of the muscles. The muscles, seemingly, have increased in volume, but in reality they have undergone only a fatty change—a fatty substitution.

This disease is rarely seen after childhood, and this girl's sister, who is 17 years of age, is the oldest case I have ever seen. The development of the disease, in many cases, is unrecognized until the time comes when the child should walk. Unlike the essential paralysis of infants, there is rarely any initial fever or convulsions at the beginning, and the first symptom noticed is a gradual loss of power.

In cases in which death has occurred, croup, pneumonia, and other diseases, some of which seem to have no connection with the paralysis, have produced the fatal termination.

So far as I know, no cures have been effected by any method of treatment; although electricity has been recommended by Duchenne and others.

### CHRONIC POLIO-MYELITIS, OR CHRONIC ADULT SPINAL PARALYSIS.

The last patient presented to-day illustrates another form of paralysis and atrophy. In this case there was a gradual loss of power at the beginning; and now, after a period of several years, we find her bedridden and helpless.

The disease from which she is suffering is known as chronic polio-myelitis, or chronic adult spinal paralysis. In adults and in children there may be also an acute form of the disease, beginning with fever and convulsions, in which there is almost sudden paralysis, followed by wasting of the muscles, but unattended by any sensory changes whatever. The acute form of the disease is not uncommon, especially

among infants; but the patient before you gives a history of a much more rare and tedious train of symptoms. She is a woman between forty and fifty years of age, and for several years has been engaged in the hospital as a helper. In her work she was almost constantly exposed to dampness, as she was obliged to wash the floors of the halls of the wards.

At the very commencement of her disease she suffered slightly from pain in the back, not of a serious character, however, and it was supposed to be rheumatism; and from that time there has been a gradually increasing feebleness of her lower extremities. On examination, they appear greatly diminished in size.

The *extensors* of the foot seem to be most prominently involved by the atrophy, so that through slow contracture of the posterior tibial muscles there is a condition of beginning double talipes.

There is loss of electric contractility, while reflex excitability of the soles and the tendon reflex are normal.

Of late there has been some anæsthesia of the lower extremities. This symptom, however, has been present only during a few months.

There seems to be no trouble with the bladder, and though she has had frequent passages from the bowels, I do not consider that she has any paralysis of the sphincter ani.

Within the last year the morbid process seems to have extended upward, for there is now some difficulty in breathing, her respiration becoming disturbed after very slight exertion.

There is no cardiac difficulty, and there seems to be only a very slight action of the chest-walls. There is neither ataxia nor disturbance of co-ordination. There is subjective coldness of the lower extremities, and a certain amount of mottling, such as I have shown you in another case.

Sinkler, who has recently published cases of this form of paralysis, is disposed to think that in some respects it is identical with the ascending paralysis of Dejerine, and from the respiratory disturbances in this case I am inclined to agree with him.

I regret that I have not a case of the acute form of the disease to show you now. There has been but one case of acute adult spinal paralysis in this hospital during the past five or six years, though upon Randall's Island I have some infantile cases, which I will bring before you upon another occasion. This form of trouble is quite common in general practice among children.

In these cases the resulting deformities are confined almost exclusively to the lower extremities, consisting ordinarily of talipes equinus, associated with excessive atrophy.

*Treatment.*—As in all other forms of atrophoparalytic diseases, our main reliance in treatment must be upon electricity.

I will here give you a word of caution regarding the selection and use of electric currents. We too often find that cases are pronounced hopeless after a distinct muscular contraction has been produced with electricity, when, after all, the observer has defeated his chances of successful observation in regard to the occurrence of subsequent contractions by the use of a too powerful current.

There are many cases of spinal paralysis in which muscular contractions may be produced by a mild current, and in those cases the careless practitioner is apt to smother any latent electric contractility by using too many galvanic cells.

*It is not well to be in a hurry*, nor to attempt to accomplish too much at first, for a muscle may contract once under a stimulus, and not immediately respond a second time.

A second excitation may so enfeeble the muscle that the beneficial results from the first application may be entirely neutralized. It is, therefore, well to begin with a minimum galvanic current, produce one or two contractions, and then allow the muscle to rest for a day, when it will be found that still more marked contractions will follow the use of electricity. When the impaired muscles may be easily aroused by the galvanic current, it will be found that the faradic current may be used with benefit, while in the beginning it will be without effect. It is well to avoid giving pain in the use of eelctricity, for I have often found that painful applications have done more harm than good. By frightening the patient, they also aid in defeating the chances of recovery.

In addition to electricity, cod-liver oil, the syrup of the iodide of iron, and strychnia, may be given with advantage, although in the condition when the muscle is in reality separated from the influence of the cord, no treatment can be so efficient as that of a local character.

# Original Communications.

## SOME POINTS IN THE TREATMENT OF TYPHOID FEVER.

By SAMUEL PETERS, M.D.,

COHOES, N. Y.

(Read before the Rensselaer County Medical Society, April 15, 1879.)

The treatment of typhoid fever has been, and is, a subject of much controversy, which is likely to result in good. When we think of the course pursued in its management for so many years after it was first made known as a distinct disease—the exhausting treatment; the ignorance or neglect of ordinary rules of hygiene; and, again, the idea that the disease could be *broken up*, or, at least, *cut short* of its regular course, and this to be accomplished only by the most heroic practice called antiphlogistic, which meant at that time that the system must be torn down in order that it might be built up; when we think of such instruction and such practice, we do not wonder that a salutary reaction followed (a reaction only too limited), and that Dr. Graves, of Dublin, desired the epitaph written on his tombstone, "He fed fevers."

The agony of a patient with fever *then*—parched with thirst, starved with hunger, choked with crude drugs in massive doses; and his comfort *now*, present a striking contrast. But while a patient's chances of recovery now are much better—while it is less dreadful in all respects; yet it is in any view a frightful disease, carrying off, as is estimated in England alone, 20,000 persons annually. The estimate in this proportion for even Europe and America would be appalling, and the question forces itself upon us, Can this number be diminished? We answer emphatically, yes. I believe it is being diminished every year by means of our better understanding of its etiology as well as its treatment. Yet I fear we have not reached that point of success which even our present knowledge will warrant, imperfect as it is, owing to the fact that many are heedless, or, to use a milder term, unthoughtful, not enforcing the means already known; and many, perhaps, omit to avail

themselves of a proper knowledge of the facts that have been worked out.

In considering the question of treatment, we shall assume a few facts without offering much proof:

*First.* That typhoid fever is self-limited, its course being completed in about 21 to 28 days. On this point I believe all authors essentially agree.

*Second.* That the tendency is toward asthenia—exhaustion from waste of tissue—too rapid oxidation; the waste exceeding the supply. The *mode* of dying is another consideration, and is secondary and consequent upon this rapid waste, often very complicated. Liebermeister and others attribute the immediate cause of death to the excessive heat, producing either paralysis of the heart or paralysis of the brain. Nevertheless, this excessive heat is the result, certainly, of rapid waste, and these paralyses are simply among the various modes of dying. A typhoid patient may die from apnœa, from hypostatic congestion of the lungs, or from syncope caused by general exhaustion of the nervous system, affecting the heart, blood-vessels, respiratory muscles, and indeed every organ of the body. To counteract the modes of death is to counteract the tendency, which, as we have said, is asthenia. This doctrine we are safe in assuming, as it is universally admitted, and is as old as Hippocrates.

*Third.* We assume that the digestive and assimilative powers of a typhoid patient remain intact—weakened probably in some degree, though not materially, for we find such patients are capable of digesting even large quantities of properly selected and properly prepared food. Upon this point there is also very general agreement. I am aware that the Germans, as a rule, have not fully indorsed this belief; that they have been charged with starving their patients, fearing the injurious effects of food. It will therefore be necessary to briefly examine our assumption of the ability of the stomach to perform its functions. Niemeyer admits the justice of this charge against the Germans, and then distinctly affirms his belief that, contrary to this notion, the stomach and lacteals are ready and willing to benefit by a proper supply of good nutriment. Some careful observers contend that even *solid* food is well appropriated. Prof. Samuel D. Turney, of the Starling Medical College, Ohio, as long ago as 1872, announced this very emphatically, and afterward reaffirmed the same opinion in the *London Practitioner* in the latter part of 1877. On the same point we may refer to an article from the editor of the (London) *Medical Press and Circular* for March 20, 1878, who very philosophically argues in favor of reviewing our old notions in regard to solid food. Papillaud, of Lisbon, takes the same position. Dr. Edward Warren, of Paris, says he is "convinced that solid food is often a desideratum," MEDICAL RECORD, vol. xi., page 47. Other confirming testimony might be adduced, but I will simply quote a few words from a short paper on this subject which I published in the London *Practitioner* for 1878, as indicating my own opinion: "Over and over again I have found that the ingestion of tender meats or bread and milk has exercised a beneficial influence," etc. However it may be with solid food, we are certainly safe in assuming that proper liquid food, at least, is generally well tolerated, digestion and assimilation being very well carried on.

An examination of the opinions of writers on the treatment of typhoid fever, shows that two classes exist. The first class believe in what they call the specific treatment, including principally the systematic use of cold baths, quinine, digitalis, and mercury, which, from statistics carefully collected, seem to result in the lowest percentage of deaths. This class contains many that are eminent in the profession, including a large number of Germans as well as French, English, and American practitioners of note. The second class adhere to the ordinary or common treatment, though differing somewhat among themselves, as opinions and observations differ; the difference consisting principally in one part advocating the careful, though persevering and bold use of drugs, with the hygienic and supporting aids; the other part seek to eschew to a considerable extent drugs or other very active measures, relying more especially upon hygenic means, together with a quite active support of the body by means of nourishment, a line of treatment very properly called *expectant.*

I wish to say in passing that the definition of the word *expectant* seems to be quite loose, and indeed wrong, as used by Dr. H. C. Wood in his Materia Medica, under the head of "Caloric," including within its meaning every treatment used previous to the systematic use of cold baths. The meaning is, "waiting for the efforts of nature." Certainly his use of it is wrong. "Waiting" was surely not a very marked characteristic of most of the old practice.

We will endeavor now, as briefly as possible, to examine these various lines of treatment, divested of prejudice as much as one can be after an experience of nearly thirty-five years in watching the disease and noting interesting points.

For the past few years the journals and other publications have been very well filled with discussions of the various antipyretics, until the question of their value has been quite well decided. The indications and contraindications may not as yet be all fully determined; however, there can be no great difficulty in applying them, with hopes of no inconsiderable amount of good. The extent, however, to which some, armed with the thermometer, are being carried away in the use of these agents, is perhaps to be regretted. They are likely to be used by many too indiscriminately, for while they are powerful agents for good, they are equally powerful for evil. There may be danger of falling into an extreme, as has too often happened in medicine as in other things. The fever thermometer has admittedly become an exalted little instrument, invaluable truly in diagnosis and prognosis, but it should not be made the principal guide in therapeutics. When its rule becomes as rigid as "the laws of the Medes and Persians;" when it declares everything else at our command secondary; when it fosters the belief that *heat* is the only important part of the fever for us to attend to,—we may be giving it too much sway.

The question, to what extent does the excessive heat of the body *per se* injure or react upon it, is not yet fully settled. Some think the parenchymatous degenerations found after death are *not* due solely to the excessive heat. Dr. Grimshaw, of Dublin, denies such an effect. Prof. A. L. Loomis makes this remark in his excellent Lectures on Fevers, published in the MEDICAL RECORD for 1876: "As yet, there are no facts to prove this assertion, for the same parenchymatous changes are found in the bodies of those who have died of diseases, the course of which was *not* marked by high temperature, and did not extend over a period of more than 48 hours." Dr. Warren, of Paris, late surgeon-general, writes to the Egyptian army that "the heat developed in typhoid fever and the virulence of the disease itself, do not sustain a necessary and invariable relation." Other very strong arguments are adduced by Dr. Warren, and may be

found in the MEDICAL RECORD, vol. xi., page 45. Whatever view, however, we may choose to adopt, there is no doubt that the antipyretics are capable of retarding at least the advancement of these degenerations in some mysterious way, and are therefore not to be forgotten, at least in those cases that seem threatening under other modes of treatment.

Very favorable results are shown in the statistics given in Ziemssen's Cyclopedia,—the mortality in some of the German hospitals being reduced from about 27 to 11 per cent. Dr. H. C. Wood, in his Materia Medica, page 616, has collected the statistics from 41 different reporters on the antipyretic treatment, and I find the average mortality is 10 per cent.—one per cent. less than that named above. I am inclined, however, to attribute a share of this diminished mortality in Liebermeister's report to the *omission* of his previous proneness, in common with other German practitioners, to the use of powerful drugs; his attention being given particularly to watching the effects of the antipyretics *alone*. However this may be, I cannot avoid expressing the belief, after carefully testing and examining the subject, that the general, almost exclusive use of the antipyretics, which is becoming so fashionable, "will have its day" like many other other things, then settle down to a proper medium *between extremes;* in other words, that the thermometer is not the only nor even the best guide to treatment. In substantiation of such a belief, I offer the following reasons:

I. It is not proved that heat is the destroying agent. This point has been already anticipated.

II. The mortality under supporting and expectant treatment compares favorably with the antipyretic. Liebermeister, on page 227, vol. i., of Ziemssen, in summing up the comparison of mortality under antipyretic and previous treatment, makes it, as previously stated, 11 per cent. against 27.3 under the latter. This is certainly a very striking difference, and in itself convincing. Yet a little examination may lead us to rather different conclusions regarding the absolute necessity of antipyretics. It will be observed that this large mortality was under the old active treatment between 1843 and 1864—the treatment of 37 years ago down to 15. Since that time we know there has been much improvement in the management of this disease in Germany as well as in other countries, especially in the matter of more active support as well as in hygienic rules; so that we cannot doubt this high mortality would now be very much less. Again, as the compiler himself admits, the diagnosis was imperfect during that period, all the mild cases of typhoid being then excluded from the reports. This would reduce the mortality also. Liebermeister, however, has since published an article showing that this fact would not materially alter the figures. Nevertheless, the difference between 11 and 27 per cent. argues strongly in favor of a systematic antipyretic course, especially, as before remarked, in those cases or in those epidemics known to be threatening.

But let us now compare the figures resulting from a mild, supporting treatment—figures that appear to be reliable, and that have been collected with considerable care. Aside from my own practice, which has been fortunate, leading me almost imperatively to observe and note what I saw in medical publications, comparing all that I thus met with my own observations, I find a practice corresponding with my own in the main yields like flattering results.

Dr. George Johnson, F.R.S., Prof. of Medicine in King's College—Physician to King's College Hospital (London *Practitioner*, vol. xv., page 108), shows a mortality under supporting treatment of 4¼ per cent. The same authority also gives another report of fifteen cases—no deaths. Dr. Lucien Papillaud, in a paper presented to the Royal Academy of Sciences of Lisbon, 1869 (*Boston Med. Journal*, vol. lxxxi., page 132), shows a mortality of 3¼ per cent. under essentially the same practice. Dr. Lazzell (Transactions of West Virginia, *Phila. Med. Reporter*, vol. xxxvii., page 176), under the treatment—to use his own words—of "the less medicine the better," says that a number of the last cases were treated on lime-water and milk, and *all recovered*. Dr. Grimshaw, of the Dublin College of Physicians, "believes that the mortality in the hospitals in which cold water has been tried, is *much higher* than that of the Dublin Hospitals" (*Reporter*, vol. xxxiv., page 196). Dr. Chas. A. Lee reports 4 per cent. in 1859 (*American Journal of the Medical Sciences*, page 335). This was in an epidemic that occurred in Westchester County, New York. Dr. Flamarion "does not see that this method (cold baths), which at first promised so much success, now gives results more favorable than those obtained by Valleix, Bouillaud, Andral, and Louis," and gives his own mortality rate at 1½ per cent (*Braithwaite*, Part 72, page 18). Under "Negative and Expectant Treatment," in the Lowell Hospital, from 1840 to 1847, the mortality was 4½ per cent. (Barclay on Fevers). The mortality at the Massachusetts General Hospital for 1829 was 4 per cent.; for 1831, 7 per cent.; for 1836 to 1838, 55 cases—*no deaths*. The reports from Pennsylvania Hospital for four years, ending in 1854, show less than 6 per cent.

This is all I have been able to find in my own library, which were more or less the result of expectant and supporting treatment. The average of the eleven reports given is 3.2 per cent. This, it will be seen, is 7.8 per cent. less than that of Liebermeister's under his most skilful antipyretic treatment.

III. The effects of antipyretics cannot be properly watched except in hospitals. It is admitted that this is not a strong objection, because contenders will say very pertinently that this does not weigh against the favorable results of antipyretics. Nevertheless, it is a matter of importance in private practice both in city and country, especially in the latter. The antipyretic treatment requires the closest care and attention, especially in noting its effects upon the heart, blood-vessels, and, indeed, upon the system generally; otherwise, serious injury might result. A physician only can be trusted. The best attendant will surely fail.

IV. The use of cold baths particularly involves a considerable amount of extra trouble as well as expense. This, like the last, is a minor objection; yet all will perceive it has its application, especially in country places and among the poor.

V. The apparent good effects of antipyretics, as observed in *some* of the German hospitals, may not prove equally favorable in other countries, or in particular localities or epidemics. A striking fact upon this point is, that the hospitals of Vienna, after a thorough trial of systematic bathing, have decided against it; the results proving unsatisfactory, mortality averaging as high as 20.8 per cent., according to Dr. H. C. Wood's table. Mortality at Ulm, under same treatment, 19 per cent.; at Rheinau, 19; at Stettin, 11; at Ostpreussen, 24, where previously it had been, under ordinary treatment, only 10 per cent. Dr. Grimshaw, before named, has used baths, and says "he will never use them again." Parisian physicians, "so far from establishing the value of cold baths as compared with other remedial agents, have really proved that the

mortality is somewhat increased by them," (MED. RECORD, vol. xii., page 128.) Dr. Pepper, of the University Hospital of Pennsylvania, thinks that "cold bathing cannot be regarded as a mode of treatment with propriety."

VI. Relapses, and various other injuries and dangers, are more frequent under the antipyretics. Various writers sustain this point, and some have already been quoted. Relapses are always to be dreaded in typhoid fever. Liebermeister acknowledges their greater frequency, and says: "It appears that the proportion of relapses, and the number of deaths are both actually increased under the use of cold water." The difference, as he states, is 2.4 per cent. in the relapses, and 8 per cent. in mortality. Biermer testifies to the same fact, as does Lindwurm. The cause of this, as supposed by Liebermeister, is "that this treatment in so far interferes with the normal course of the disease as to retard the development, destruction, or expulsion of the poison as a whole; or entirely to prevent these changes in a certain portion of the poison." Most observers believe hemorrhages are more frequent after baths. This, however, is denied by Liebermeister. Dr. Schultze, of the Heidelberg Hospital, an advocate of baths, says "they cause a considerable increase of hemorrhages by 4.3 per cent." Again, he says, "the different forms of delirium and complications are *much* increased." And again, he says, "neuralgias, and pains in the feet and muscles of the lower extremities appear frequently." Bed-sores and chest affections are, perhaps, less frequent when baths are skilfully used. The percentage is, however, very small.

Hitherto we have spoken more particularly of baths. For quinine, we may remark that in large doses it is about as certain an antipyretic as baths, and while open to some objections, when used in the largest doses, and is therefore rejected by a few, its reputation is very well maintained; Liebermeister prefers it to baths, if but one antipyretic agent is to be used. Undoubtedly a larger number of contraindications will be found than are at present known, and its indications better understood, especially in the pyrexia. Some precautions, however, are to be remembered. Prof. Lindwurm cautions against its use in large doses in *weak heart*. Prof. Binz shows that large doses are capable of producing death by paralyzing the heart; hence the necessity of watching the condition of this organ before and after the administration of antipyretic doses. Niemeyer abandoned large doses. Dr. Peacock of London reports against it, as does Dr. Edward Warren of Paris, Barclay, Hughes Bennett, and others. My own experience is limited, having found the treatment alluded to in this paper generally sufficient. I can say that I have never observed any evil effects from its use, except that it appears to aggravate the diarrhœa. Dr. H. C. Wood and Roberts Bartholow speak distinctly of its irritant action upon morbid states of the intestinal mucous membrane, yet I do not remember to have observed any mention of this in any writings on typhoid fever.

Digitalis is an acknowledged antipyretic, and like the others is not to be given when there is any considerable degree of cardiac weakness. Liebermeister says: "The rule for its application is just the opposite to what it is in disease of the heart. The impending paralysis of the heart is not prevented by the use of this drug, but seems rather to be favored thereby." The temptation to resort to it in *all* cases, as a "heart tonic," renders this caution doubly important. Certainly there is reason to fear that this powerful remedy may sometimes be misapplied in typhoid fever.

VII. The last objection we will name is that antipyretics are not necessary in a large number; perhaps we may say in a *large majority* of cases of typhoid. We know that the disease is self-limited; that it cannot be cut short; that heat is an inevitable symptom; that we are to support early the otherwise rapidly wasting body; that digestion and assimilation are fortunately on the side of the patient. We may therefore lean confidently upon the excellent hygienic rules well known to us, avoiding drugs and all strong agencies as much as possible. I cannot help thinking these are truisms; some of them very old, none of them really new, yet well worthy of our thought and attention, and as we have seen, not wholly devoid of promise.

One point of the first importance in the management of a case of typhoid fever, is the selection of a large, airy, quiet room. If any point in hygiene is important, it is that of perfect quietude. No person should be admitted except the attendant and physician. A few strange faces in the room for only a brief time will very likely insure a restless night, as well as a higher temperature. Even friends and intimate acquaintances should not be admitted, though they promise to remain silent. If my patients have no other luxury, they *can* and *shall* have this one. Grant it, and a careful, quiet attendant, and the thermometer will surely indicate a lower scale. Next, always prepare everything for disinfecting immediately all excretions, and all the soiled clothing before they are removed, to effectually prevent any further spread of infection. All this is advisable, though we may not indorse the full doctrine of contagion. In the meantime carefully seek for the source whence the patient was first infected, and we will often be happily rewarded with success. The source once found, will be a pleasing subject for thought, and *useful* thought, too. Lastly, assure the patient of his ultimate safety; speak to him confidently, count the days for him, encourage him by assuring him that he can have the disease but once, etc., etc.

I am aware that we are not writing for children, but I like to expend words on such a theme; therefore I shall have full pardon.

Cleanliness is, as all know, important. Especially should the teeth be often and thoroughly cleansed from sordes and foul secretions, which would otherwise be left to form a continual fountain of putrid, poisonous matter. This is to be thoroughly done by the attendant, if the patient is unable to do it for himself.

His position should be often changed, to aid in preventing hypostatic congestion of the lungs and other organs. This little manœuvre is unquestionably of great utility—much more than the time it takes to mention it. Even the brain, I believe, sometimes suffers from this hypostatic force of the blood. I further believe the *weight* of the various organs may discomfort and injure them, when the patient is allowed to maintain one position for weeks. The heart certainly cannot afford this.

I desire now to speak of the question of washing the body, so commonly recommended. I do so with great diffidence, because I shall find myself at variance with most—perhaps I should frankly say, *all* authors. However, we will venture it. Do not be constantly scrubbing the skin, either in health or disease, especially in the latter, when the powers of life are going through with a most trying struggle. It costs vitality something to rudely scour the whole surface frequently. If we were once aquatic animals, we

are not now. Even a full bath a few times a day is not as objectionable as this, the disturbance not being half so great. Where the patient desires it, it becomes another thing, and will very likely do good if not repeated too often.

In regard to alimentation, I need scarcely say it is immeasurably important. It is a radical principle in typhoid therapeutics, based upon experience and the combined testimony of the largest number of those most experienced. We would as soon think of saving a man's life without tying or compressing a severed artery, as to think of treating typhoid without diligent support. Rapid waste is steadily and surely going on from beginning to end. Combustion is intense, involving the tissues everywhere. As Niemeyer well says, "No sort of exercise will use up the body so rapidly as a fever does, and most fatal cases of fever are due to insufficient material being furnished for the replacement of that used up." "Food and sustenance," says Aitken, "are the real preventives of delirium, and the best stimulants of the nervous system." Invariably do we see a patient who has been well fed, get up from a typhoid fever but little emaciated. More than this, such ones convalesce more rapidly. There can be no doubt in the propriety of even crowding the patient to take nourishment, especially if he is listless or refuses. I am sure by so doing many a life has been saved.

The kind of food has been a subject for much discussion, but it is now pretty generally settled that *milk* should form the basis. It is at once abundant, cheap, always ready, no cooking process needed, and it contains all the elements of support and nutrition which the system requires; nature's own compound, and like herself *perfect;* adapted to all ages, as well as every stage of the disease. It may be given clear, or, perhaps, preferably with lime-water, and if it produce a fulness at the stomach, failing to digest properly, it may be aided with pepsin, as recommended by Dr. W. H. Thomson, of New York. The quantity should be, if possible, from three to six pints in twenty-four hours. I once had a case, a lady of large frame and plenty of adipose tissue, that drank every day four quarts by measure of clear milk. I was frequently inquired of as to the probability of her recovery. I answered that she *could not die*, because she was able to appropriate so much nourishment. She recovered, of course!

For the diarrhœa there is probably nothing equal to a milk diet, and as a support to the nervous system it can scarcely be surpassed. It must not be forgotten, however, that it fails to agree with all cases; that it requires in some instances to be given in smaller quantities, the deficiency to be made up in other food. Occasionally a case will be found wherein it must be discontinued altogether. Very rarely indeed, however, must this happen. Solid food, as before said, is often agreeable, such as tender meats, stale bread, etc. Grapes and peaches I have always found acceptable, notwithstanding their interdiction by Liebermeister.

Beef-tea, so fashionable the world over, is at best *poor stuff*. It easily ferments in the stomach, and must then surely increase the diarrhœa as well as the tympanitis, by filling the intestines with gas (Ziemssen, Johnson, Liebermeister), and further, we know it contains little nourishment. I have generally found eggs objectionable also, especially if taken raw in the form of egg-nog.

Inunctions of the whole cutaneous surface, several time a day, with fresh lard or olive-oil, with or without lime-water, are highly useful. Many are aware of their beneficial influence over the extreme heat of scarlet fever. They are equally valuable in typhoid fever. They reduce the heat quite perceptibly; keep the skin moist, open, and active; sheath the sensitiveness of the cutaneous nerves, and thus promote rest. I find they are highly praised by Dr. Thomson, of the University of New York, who has marked a fall in temperature of from one-half to a full degree. He further believes it relieves the thirst by "restoring the functions of the skin, which enables it to add water to the system when needed, as well as to abstract it when the circulation is too full." He is quite sanguine in the belief of its good effects also in cases of general anasarca when the skin is tense and thus rendered incapable of performing its functions. Furthermore, he thinks these inunctions prevent bed-sores (MED. RECORD, vol. x., page 709). Dr. Edward Warren also indorses these views fully.

Drugs are often useful. A discreet physician finds some use for them to subdue, now and then, an excessive diarrhœa, or cough, or active delirium, or other symptom. But many believe, with myself, that in fevers and most other self-limited diseases the old maxim is appropriate, "Throw physic to the dogs."

Antipyretics have their place, as we have tried to show, especially quinine; but remember they are not *always* called for when the thermometer gives an alarm.

Turpentine is a most useful remedy in the later stages. Opium and acids are occasionally called for, etc., etc.

A long list of names could be appended to the above sentiments, but we will close with the excellent words of Dr. Aitken: "It is, above all, necessary to guard against the habit of trying always to be doing something."

## PLACENTA PRÆVIA—INDUCTION OF LABOR—AN ILLUSTRATIVE CASE.

By EDWARD L. PARTRIDGE, M.D.,

NEW YORK.

APPROXIMATELY, the mortality in placenta prævia, as indicated in the statistics collected by Sir James Simpson, Dr. William Read, and Dr. Trask, and in the recorded and related experience of many other noted obstetricians, may be stated to be between twenty and thirty-three per cent. as regards mothers; while between fifty and seventy-five per cent. of the children have perished.

The induction of premature labor, as a method by which this large mortality may be diminished, is a practice which has been advised and adopted within a very recent period of time. A no less reliable writer than Dr. T. Gaillard Thomas is responsible for the statement that he believes that, previous to fifteen years ago, "no work, essay, or text-book" advised this method of treatment. Previous to this time, it is true that in many cases premature labor occurred spontaneously, and in other cases the means adopted to control hemorrhage—such as the tampon—had the effect of exciting uterine action; but it remained for Greenhalgh in England, and Thomas in this country, to clearly show that the induction of labor, perhaps not even at the time when a hemorrhage was taking place, but in *any case* in which the *existence of placenta prævia was ascertained*, was the chief factor in the successful treatment.

The principal advantage of this over other methods arises from the fact that the entire labor is under the immediate observation and control of the attendant,

while the danger of a sudden and fatal hemorrhage previous to his arrival, if he decides to wait until the natural termination of pregnancy, is a grave one.

These statements, I think, afford a sufficient reason for relating the following illustrative case:

On April 12, 1879, I was called to see Mrs. S., and obtained from her this history. She had borne six living children, and was now thirty-seven years of age. Her labors had always been characterized by her medical attendants as tedious, but were never complicated. Her last menstruation was from July 6th to 8th, and she was therefore approaching the end of the ninth month. On January 10th she was attacked with pneumonia, and was sick a little more than two weeks. On January 25th, 26th, and 27th she observed a moderate discharge of blood, unattended by pain, which was sufficient to stain her clothing, but was not worthy of being called a hemorrhage. Six weeks ago a similar discharge appeared, which continued three days. Four weeks ago she sustained a severe hemorrhage, and, in a few hours, lost more than eight ounces of blood. Rest in the recumbent posture checked the discharge, though it continued in moderate quantity for three days, during which time there escaped some coagula.

On the morning of April 9th, she took castor-oil, and in the evening of the same day, while having a movement from her bowels, she was seized with a sudden and profuse hemorrhage. This continued to be excessive, and she remained constantly in her bed. Any movement would aggravate the flow. Up to the morning of the 12th inst., during this attack, she thinks she lost more than eight ounces of blood. She passed several clots as large as half an orange, but had felt *no pain* of any kind. Her statements were not exaggerated, as they agreed with those of her husband, and both were persons of intelligence.

When I saw her on the 12th, she exhibited, to some extent, the effects of the loss of blood. The pulse was slightly accelerated, and the face and mucous membranes of the eyelids and lips somewhat blanched, still she "felt well." Local examination revealed the os high in the pelvis. The cervix was very soft and about two inches in length. Two fingers could be passed within it and the structure of the placenta detected in all directions. The discharge of blood at this time was in quantity as if she was menstruating. Fœtal movements were vigorous. During the next few hours nothing of any importance occurred. In the evening Drs. J. Williston Wright and J. H. Fruitnight saw the patient in consultation with me. The latter gentleman had attended the patient in the past, but understanding the requirements of such a case, and living at a considerable distance from her, had kindly referred her to me.

The proposition to induce labor and deliver her at once was accepted by all of us as the best treatment for the case. An enema served to empty the rectum of a large fecal accumulation. A more complete examination revealed the strong pulsations of the fœtal heart at 152, most distinct in the right hypogastrium, but quite perceptible to the left of the median line. The uterine souffle was most marked above the line of the umbilicus toward the patient's right side. Palpation showed the child's head inferiorly and a little to the left of the median line; the breech could be felt to the right, superiorly.

Chloroform was administered and the patient kept partially under its influence. At 9 P.M. the middle-sized Barnes's dilator was inserted, distended, and in ten minutes removed from the vagina into which it had slipped from the os.

The large dilator was introduced and was in position about twenty minutes, when its usefulness ceased, owing to the dilatation of the os, and it was removed. Each dilator served not only to effect expansion of the os, but also to dissect up the placenta for a little distance beyond the margin of the os, so that there ensued no hemorrhage after their removal.

The chloroform was now pushed until complete anæsthesia was produced.

It was determined to perform internal version, and I passed my hand into the vagina and cervix and began to rapidly separate the placenta from its uterine attachment. At first this was done in all directions, with the hope that at some point its margin would be reached at no great distance from the os, but not finding the placental border within easy reach, and profuse hemorrhage commencing, I chose to advance in the direction (toward the mother's left) which, owing to the child's position in utero, offered the most ready access to the feet. Passing my hand between the membranes and the uterus, until near the fundus, the left foot was easily distinguished and seized through the membranes. Version was readily accomplished, the arms brought down, and delivery completed at 9.45 P.M. The placenta came with the child. There was very little liquor amnii. The length of time from the introduction of the first dilator until completion of labor was forty-five minutes, and the time from the introduction of the hand into the vagina until the termination of delivery, less than ten minutes. About four ounces of blood was lost.

The child weighed eight pounds, and had a pulse of about eighty at birth. Within a minute respiration was established with natural heart's action. During the process of dilatation about eight slight uterine contractions took place, the uterus straightening up and becoming hard. During the extraction of the child, the uterus acted forcibly, and, after delivery, never for a moment showed any disposition to relax. Ergot was administered subsequently. There was no condition of shock resulting from the rapid delivery.

An hour and a half later the patient was asleep with a pulse of eighty. Convalescence was normal in every respect and the child was strong and active.

The placenta—which was centrally situated with almost mathematical accuracy—was of large size and nearly circular. Its greatest diameter was ten, and its shortest eight and half inches. In its centre, at the point of implantation over the os, there was an accumulation of white fibrous tissue. The umbilical cord measured fifteen inches.

The oft-quoted statement made by Nagele concerning placenta prævia, that "there is no error in nature to be compared with this, for the very action which she uses to bring the child into the world is that by which she destroys both it and the mother," will always remain full of meaning. I cannot but feel, however, that when the induction of labor is recognized and practised as the *important* element in the treatment of this complication, statistics will place "unavoidable" hemorrhage in a very different position from the formidable one which it occupies in the literature of the past and in the mind of the practitioner.

It is as important to decide upon the proper *time*, as upon the best means to effect delivery.

The arguments in favor of this method of treatment, which have been offered by Greenhalgh, Thomas, and Parvin, cover the entire ground, and there seems to be little to add now except statistics to confirm them. Owing to the infrequent occurrence of placenta

prævia, an accumulation of cases from which to draw deductions can come only in many years.

It is certainly the duty of practitioners to report faithfully both successful and unsuccessful cases in which induction of labor is employed, until there can be no doubt in any mind concerning the utility of the operation in this class of cases, which, in the past, has excited much anxious attention from general practitioners and renowned obstetricians.

# Reports of Hospitals.

## BELLEVUE HOSPITAL.

### Notes of Practice and Peculiarities of Treatment.

#### Interesting case with reference to diagnosis—jaundice—marked febrile movement—diminution in the size of the liver—delirium-duodenitis—recovery.

The following case was especially interesting with reference to diagnosis and severity of symptoms: A female patient, a native of Ireland, aged 33 years, a widow, and a domestic, was admitted to the hospital on the 13th of January. Nothing definite could be obtained with reference to her previous history. At the time of admission she had a well-marked febrile movement, the temperature being 105¼° F. At the same time she was very deeply jaundiced. Physical examination gave negative results, except with reference to the liver and spleen, both of which were somewhat enlarged. In addition, there were cerebral symptoms; the woman was mildly delirious. The tongue was coated, was brown and dry, and except for the jaundice the patient presented very much the appearance of one suffering from typhoid fever.

On the night of January 14th the delirium became so violent that it was necessary to remove the patient from the ward to one of the cells.

On the 15th of January the patient was again rational and was transferred to the ward. The temperature during this time continued high.

On the 16th of January physical examination was made, and it was found that the liver, instead of being enlarged, was diminished in size.

On the 17th of January her temperature was 103° F., and she was again delirious.

On the 18th of January her temperature was 102° F., the tongue had commenced to clean and was moister, the jaundice had diminished, her mental condition had improved, but the liver still remained small.

On the 19th of January her temperature in the morning was 99½° F., and in the evening 100° F., and she was perfectly rational.

On the 20th of January her morning temperature was 99° F.; evening temperature 99½° F., and she was feeling nearly well.

When first admitted the general condition of the patient was such as to indicate a probable fatal termination of the case, and such prognosis was made during the first two or three days of her sickness. The disease naturally suggested was acute yellow atrophy of the liver. For, soon after admission, there was rapid and marked diminution in the size of the liver, and the jaundice and the cerebral symptoms were well-marked. Against that diagnosis was the fact that there had been neither gastric nor intestinal disturbance. It was remarked that in all the cases of acute yellow atrophy of the liver which had been observed there had been some disorder of the stomach and bowels, and notwithstanding the jaundice, the high temperature, and the cerebral symptoms, the marked diminution in the area of hepatic dulness, the visiting physician was not willing to say that the patient was suffering from acute yellow atrophy of the liver.

The progress of the case, it was thought, made the diagnosis quite clear, and it was regarded as one of *duodenitis*.

The symptoms were much more severe than those developed in ordinary attacks of duodenitis or gastro-duodenitis, but in that respect it was thought that it might safely be regarded simply as an exception to the general rule. For, occasionally cases of apparent duodenitis at least were seen, which gave such a history as the woman before us.

It was farther remarked that if there was good reason to suppose the patient had a fatty liver, it would make the explanation of the case much easier. For, when duodenitis was developed in connection with fatty liver, the symptoms were much more marked, especially the cerebral symptoms. But the liver was of small size, so small that another condition was suggested—namely—cirrhosis.

In most women, dressed according to common custom, the free border of the liver is below the free border of the ribs, but in the patient before us the free border of the liver was above the free border of the ribs.

It was thought to be quite possible that the patient was suffering from cirrhosis of the liver, which possibly might explain why the symptoms of duodenitis had been so much more severe than in ordinary cases.

The experience was such as the visiting physician had had before, and had led him to the conclusion that it was well not to be in haste with reference to making a diagnosis of acute yellow atrophy of the liver. The treatment was almost nothing.

Quinine was administered when the temperature was the highest, the patient was nourished chiefly with milk, and the disease was allowed to run its course. The case was regarded as one which served well to illustrate how severe the symptoms of duodenitis might be.

# Progress of Medical Science.

Chaulmoogra Oil in Phthisis.—The value of chaulmoogra oil has been tested by L. Burney Yeo, M.D., in nine cases of phthisis, and the results of his investigations published in the April number of the *Practitioner*. The oil has a nauseous odor and taste, and is solid when cold, rendering it necessary to mix it, after warming, with some diluent, as almond oil. Of the nine cases, three are dead; one passed from observation, after taking the oil for a fortnight, without any improvement; one found it impossible to continue it on account of the gastric disturbance it produced; one appeared to get decidedly worse during the administration of the oil, became very feverish, his temperature rising to 104°, then, on the discontinuance of the oil and the substitution of the hypophosphite of lime and cod-liver oil, he mended considerably; one, after taking the oil for two months, was no better, and was allowed to discontinue it, as he complained that it made him sick; one discontinued his attendance after the first fortnight and went

word that he was "not so well;" and one improved considerably. These trials are not claimed to be conclusive, but they certainly are not very encouraging. It is proposed to give it one or two more trials in the form of *perles*, and in as favorable and early cases as come within observation.

SULPHUR AS A TOPICAL APPLICATION IN DIPHTHERIA.—Mr. Stuart, of Dunse, N. B., used sulphur for destroying diphtheritic membranes on the tonsils with sufficient success to induce him to report the case, hoping that others may be tempted to test the value of the remedy. The sulphur was applied every hour by means of a quill, and the membrane on the right side had disappeared by the next day; on the left side no trace of it appeared on the third day. The membrane first became blackened, and then detached; but Mr. Stuart does not offer an explanation of the *modus operandi*. In spite of the rapid disappearance of the membrane, the patient suffered subsequently from a slight attack of paralysis of the larynx and pharynx. Shortly afterward his elder brother became affected with the disease, but made a good recovery under maternal treatment with sulphur. Another case has since been treated successfully in this manner by Mr. Stuart, with the exception that swabbing the throat with sulphur and water took the place of blowing the powder on.—*The Practitioner*; April, 1879.

ANIMAL HEAT.—The source of animal heat has always been an interesting question to physiologists and one difficult of satisfactory elucidation by experiments. Nevertheless, Dr. A. Flint, Jr., thinks he is justified in drawing the following conclusions from his own observations and those of others:

1. It is probable, and indeed almost certain, that nearly all the animal heat is produced by oxidation, in the body, of certain elements, which are chiefly nitrogen, carbon, and hydrogen.

2. It is probable that this oxidation does not take place entirely in the blood, but that its seat is in the various tissues, and that it is connected with the general processes of nutrition and disassimilation. Heat is thus evolved, and the final products of the chemical actions involved are mainly urea, carbonic acid, and water. It must be remembered, however, that the oxidation is not necessarily a process identical with combustion out of the body, but that it is probably connected with a series of intricate molecular changes, which cease with the life of the tissues, and of which we can only recognize the final results, viz., calorification and certain chemical products.

3. Recognizing the products urea, carbonic acid, and water as representing probably the evolution of a certain amount of heat, we cannot account for the heat actually produced in the body by the amount represented by the urea and carbonic acid discharged. If we admit that hydrogen is oxidized in the body, resulting in the evolution of heat and the production of water, this will enable us to account for all the heat actually manifested as heat, leaving an excess which may be converted into force.

4. My experiments show pretty clearly that when no food is taken, and when, food being taken, muscular work is performed, so that there is loss of body-weight, water is actually produced in the body. This, and this only, enables us to account for all the heat evolved under these conditions. There is no reason to suppose that the processes involved in the production of heat are radically changed in their character when enough food and water are taken to maintain a uniform body-weight.

5. Animal heat is produced mainly by the waste of the hydrogen, carbon, and nitrogen of the tissues, the waste of these elements being supplied by the food. Probably the oxidation of carbon and hydrogen is a more important factor in calorification than the oxidation of nitrogen; at least, it is certain that the heat-value of the oxidation of carbon and hydrogen is greater than that of the oxidation of nitrogen, and the heat thus produced is very much greater. Of the two elements, carbon and hydrogen, the oxidation of which produces animal heat, the heat-value of the hydrogen is by far the greater.

6. It is probable that there is always a certain amount of oxidation of hydrogen in the body, and that this is necessary to maintain the animal temperature; and it is almost certain that this occurs during prolonged absence from food, and when the production of heat is much increased by violent and protracted muscular exercise. It may also be that there is an active and unusual oxidation of hydrogen, as well as of carbon in fevers.—*American Journal of Medical Sciences*, April, 1879.

UNUNITED FRACTURE OF THE HUMERUS.—A case of ununited fracture of the humerus, which had resisted all efforts to make it unite, was successfully treated by Dr. Le Moyne, Pittsburg, Pa., by double splice and clamp. From the lower fragment a piece was removed, leaving a V-shaped depression, into which was fitted the wedge-shaped extremity of the upper fragment. A clamp of steel wire, bent at right angles a short distance from either extremity, was now fitted to the bone, a hole being drilled in either fragment for the bent extremity of the clamp. Apposition was perfect; splints were applied, and the patient kept at rest. The next day, however, the clamp had shifted, and some displacement ensued. Wires were now passed around the bone, so as to secure the clamp to both fragments, splints re-applied, and the wound dressed with oakum and balsam of Peru. The operation was performed on the 23d of October, fifteen months after the receipt of the original injury. On November 26th the dressings were completely removed for the first time, and some union found; by December 9th the union was firm and complete. About December 20th, an attempt was made to remove the wires and clamp; but they were so firmly imbedded in the provisional tissue, and the wound appeared so healthy, that the wires were cut short and they were left in position. When last seen, the wound had almost closed; the mobility of the elbow-joint was somewhat impaired, but improving.—*The American Journal of Medical Sciences*, April, 1879.

DUBOISIA AS A MYDRIATIC.—The local effects of duboisia myoporoides, when applied to the eye, are similar to those of atropia; but they are more promptly produced, and disappear more rapidly. Its greater tendency to produce constitutional disturbance, however, should cause it to be carefully used. Nearly every patient into whose eyes a four-grain solution had been dropped complained of dizziness within a short time after its instillation, usually noted after rising from their chair. They do not, however, complain so much of dry throat as those treated by atropia. Where persistent use of atropia has failed to tear loose posterior synechiæ, but little effect has followed the employment of duboisia. On the other hand, it gave much satisfaction in two cases where atropia called forth marked conjunctivitis. One was a severe iritis, the other a case of cataract, where, owing to capsulitis following extraction, it was desirable to maintain dilatation of the pupil.—WM. F. NORRIS, M.D.: *The American Journal of Medical Sciences.*

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, May 31, 1879.


## DUTY ON CINCHONA ALKALOIDS.

For some time an effort has been made to secure the passage of a bill by Congress which shall remove the duty from the cinchona alkaloids. The effort thus far has for some reason failed. It being a question in which the medical profession is directly interested, the nominal influence of that great body has from time to time been sought in favor of the enactment of such a law. It is, we believe, the prevailing opinion among medical men that the duty on these articles should be removed; and the representative body of the medical profession in this country, the American Medical Association, has at various annual meetings declared itself in favor of such a measure, perhaps without knowing exactly why, or how, the crockery in this china-shop should be broken. At the last meeting of the American Medical Association, held in the present month at Atlanta, a delegate from Philadelphia presented a bit of fine ware in the shape of a memorial, or petition, or communication from his county medical society, asking the Association to reverse its former action, and declare itself in favor of allowing the law to remain unchanged. The communication was immediately tabled; and not only that, but the gentleman upon whose motion it was laid upon the table, at once moved and secured an unanimous affirmative vote of this delegated body, containing representatives of the profession from a large number of the United States, upon a resolution asking Congress to remove the duty upon all alkaloids of cinchona. This action on the part of the profession had its effect, for upon the following day, a monopoly, represented by the three largest manufacturing companies in this country, appeared before the Association wearing the old threadbare suit in the form of a communication addressed to the Chairman of the Committee of Arrangements, stating that if the duty on quinine was removed, they could no longer continue its manufacture. That communication was also laid upon the table, thus showing that the profession had little fear its wants in that direction would not be supplied. Neither the profession nor the people need fear that the alkaloids of cinchona cannot be obtained, should the duty be removed at once and these firms cease manufacturing them. But they would not stop their work. It is doubtless true that the cinchona alkaloid can be as well and as cheaply made here as in any other country; that the duty simply increases the profits; and that no makers with established apparatus and processes will stop if the duty is removed. But suppose they do stop, it will not harm the therapeutic interests, because the cinchona-barks they use would remain in Europe, or go directly there, and the same quantity of alkaloid-salts would at once be accessible at lower prices. This is true, simply because the duty now enables manufacturers here to pay higher for barks than they would bring in Europe, thus rendering our makers injurious competitors with the cheap makers in Europe, while the higher prices paid here for barks are transferred to the cost of the consumer in the product. Again, if the makers in this country should stop their machinery, the cinchona market of the world would lose the competition of a powerful monopoly supported by a direct tax on the consumer, and all Europe would get barks cheaper, thus enabling it to produce alkaloids at lower prices, and in the same aggregate quantities. All the cinchona-barks produced and producible at the present low prices are made into alkaloid salts, and probably will be, and the salts are all consumed, and it is a matter of small moment to this country where the salts are made, so they are made. It is, however, of very great importance that they should be had cheaply; and if our makers should stop now, with the duty on, and not deal in either the barks or the salts, the latter would probably be sold cheaper in this market than they now are. As an evidence that this is true, our makers have for a long time been large importers of these salts, and have themselves paid the duties, with a fair presumption that they made money on their importations, as well as a much greater profit on what they manufactured. There are thousands of consumers in this country who suffer from a direct tax imposed upon them by a wealthy monopoly at home, aided by an act of Congress that fixed an iniquitous discriminating duty of 10 per cent. on articles coming via Europe from the east of Cape of Good Hope. We believe that Congress cannot do more to relieve suffering humanity in the United States than would be realized from an immediate removal of all duty from cinchona-barks and their alkaloids. The resistance from monopolies will be great, but the medical profession and the people will sustain their representatives in such a movement.

### THE INCREASE OF MALARIA IN NEW YORK CITY.

For some time there has existed an impression that malaria is rather increasing than diminishing in New York, and this has been remarked especially during the past winter. Statistics, so far as they go, tend to corroborate this idea. Thus the total number of deaths from malarial diseases, including also typho-malarial and simple continued fevers, was in the six months, including the winter of 1874–'75, only 118. In the corresponding six months of succeeding years this number gradually increased to 125, 132, and 139, while in the six months ending with March, 1879, the number was 178. The number of deaths in the other half of the same years shows a similar gradual rise.

Now, as the mortality from malarial poisoning is extremely small, it is obvious that under ordinary conditions even a slight rise in the death-rate would indicate a very large increase in the number of cases mildly affected by the disease. Without claiming too great value then for the figures given, we believe it a fair inference that malarial diseases have been and still are increasing in this city. If it be so, the fact warrants some attention. This, indeed, it has already received in some quarters, and speculations and inquiries as to the cause are appearing in print.

It is asserted that there have not been any sufficiently marked meteorological conditions to account for the increase of the disease, also that this increase cannot be laid to upturning of the ground, or to old water-courses, or defective plumbing; for, if anything, there has been improvement in all these things. As a last resort, the theory is broached that the malarial germs are brought to the city by croton-water. The capacity of the lakes from which this water comes has been severely tested of late. They have been drained so low as to lay bare their banks to a considerable extent, and have thus increased the amount of malaria in their vicinity. The idea, therefore, that the poison is conveyed to us through the pipes appears at first to have some plausibility. We are by no means inclined to adopt it, however. It has, in the first place, never been proven that malarial poison can enter the system by drinking-water, it being more likely, in the few cases where this has appeared to be the case, that the bad water was only an exciting cause. To mention no other argument, however, the fact that the mortality from malaria is not notably increased in the summer months, when alone the poison can breed, is marked evidence against the theory.

The truth is that the ways of the malarial germ are often erratic and inexplicable. Although warmth, moisture, and decaying vegetable matter are generally the factors in producing it, these are often insufficient, and other and inscrutable elements must be assumed as exciting or preventing its development. There seems to be such an element in the present increase of the disease in this city.

### THE PLAGUE.

The name plague has been applied to a number of malignant and rapidly-extending epidemics, between twenty and thirty of which have been recorded as occurring. The bubo-plague, the form of the disease which has recently visited Russia, is a product especially of the present era, and first occurred with greatest severity in the sixth century. The plague in general, however, according to Dr. D. N. Kinsman, who has given an excellent account of it in the *Ohio Medical Recorder*, has occurred in three different forms during the world's history.

In the first form the poison affects the nervous system especially. The patient is suddenly and violently prostrated, and either rapidly succumbs or recovers.

The second form is the one that attacked Athens and Persia, B.C. 540. The disease was graphically described by Thucydides as follows: "There was headache, fiery redness of the eyes; the tongue and throat were blood-red; the breathing was difficult and of noisome odor; there was sneezing and hoarseness, spitting of blood, vomiting, fluxes from the bowels, and hiccough. The body was reddish, with livid pustules and sores; there was a sensation of great internal heat. The patients could not remain covered with clothing; they longed for nothing so much as to be plunged into cold water, and many, from not being properly attended, plunged into wells and perished. There was great restlessness, so the patient could not sleep. In spite of this terrible condition, there was no visible wasting of the body. The malady at times beginning in the head, shot down into the fingers and toes, and even the private parts, by the losing of which they escaped with their lives. Neither animals nor birds preyed upon the bodies of the dead, and those which tasted died. Some died for want of care, and what was a relief to one was prejudicial to another. Differences of strength or weakness were all swept away by the pestilence. Neither prescription nor diet protected. If fear held them from going near one another, they died for want of help; and if they ventured, they were gone."

The third form, to which we have referred, is attended with intense fever, buboes, and gangrenous sloughs, and has been previously described in this journal. It has appeared as a severe epidemic only four times.

Assuming a certain amount of pathological identity between these forms, the affection can claim no inconsiderable part in the world's history. It has rarely appeared without slaying its thousands, or even millions. It destroyed the hosts of Assyria; the immortal Galen discreetly fled before it; if we may believe historians, it hastened the disruption of the Roman Empire, and was a potent factor in the intellectual and religious changes of the fourteenth century. That it has devastated vast tracts of land, humiliated kings, incited religious as well as medical fana-

ticism, and then destroyed the fanatics, is sufficiently well known. The plague which appeared in the fourteenth century caused the death of 100,000,000 people, its greatest virulence extending over only three years. Those could not have been jovial times. In past years, too, to add to the terrors, the epidemics were almost always accompanied with remarkable terrestrial phenomena: terrific storms, swarms of locusts, earthquakes, and volcanic eruptions.

Passing from its history, we find the cause of the disease to be a specific contagium, which may originate *de novo*, may be transported by fomites, and be multiplied in the body. It has always been thought to have the peculiarity of being destroyed by extremes of heat or cold; and, as a general rule, this is true.

It can be inoculated, but one attack does not protect from another. When the disease has once appeared, there are but two effective measures that can be taken against it. One is fire, and the other an absolute, or "shot-gun," quarantine. It is one of the few advantages of a despotic government that under it such a quarantine can be enforced. It appears that freemen, however, prefer an epidemic to infringement on their constitutional rights.

But though, when the disease has once appeared, we have no sure prophylactic except isolation, and no certain disinfectant except fire, the habits of life have so changed among civilized nations that the plague which springs from filth and grows upon the distress it causes can never again appear extensively among us. With obedience to the laws of hygiene as a prophylactic, and State medicine as a therapeutic measure, the plague which could once hasten the fall of an empire is now less alarming than the measles. This is surely an indication that we have advanced.

# Reports of Societies.

## AMERICAN MEDICAL ASSOCIATION.

### THIRTIETH ANNUAL MEETING,

*Held in the City of Atlanta, Ga., May 6, 7, 8, and 9, 1879.*

### REPORT OF SECTIONS.

(Continued from p. 497.)

### SECTION ON SURGERY AND ANATOMY.

DR. MOSES GUNN, of Chicago, Ill., Chairman; DR. J. R. WEIST, of Richmond, Ind., Secretary.

TUESDAY, MAY 6.—FIRST DAY.

The Section was called to order at 3 P.M. by the Chairman.

The Chairman appointed as a sub-committee, to which all papers read before the Section should be referred, Drs. W. T. Briggs, of Nashville, Tenn.; W. W. Dawson, of Cincinnati, Ohio; and W. F. Westmoreland, of Georgia.

ON DEFORMITIES OF THE FACE AND HANDS OCCASIONED BY CICATRICIAL CONTRACTION FOLLOWING A BURN.

DR. A. C. POST, of New York, read a paper upon the above subject, with report of cases successfully treated. The paper was illustrated by means of casts and photographs, and showed one of the great advancements made in surgery. The paper was discussed by Drs. I. N. Quimby, of Jersey City, N. J.; W. T. Briggs, of Nashville, Tenn.; and W. W. Dawson, of Cincinnati, Ohio.

DR. H. O. MARCY, of Massachusetts, then read a paper on

ASPIRATION OF THE KNEE-JOINT.

It contained an account of 68 cases and 118 aspirations. The quantity of fluid removed at each aspiration varied from half an ounce to eight ounces, and was serous, sero-purulent, and sero-sanguinolent. Death occurred in only one case. The best results were derived in acute inflammatory traumatic cases. The operation should be performed early; the joint should be reaspirated as often as fluid accumulated, and followed with an elastic bandage, fixation, and rest.

DR. WM. A. BYRD, of Quincy, Ill., referred to a case in which he had successfully aspirated the knee-joint.

DR. A. C. POST, of New York City, referred to a modified process of aspiration in the treatment of inflammation of the knee-joint. It consisted in drawing off the fluid through an aspirator needle, and then distending the cavity through the same needle with a solution of carbolic acid of the strength of 1 to 30. It was upon the principle of hyperdistention, according to Callender, and Dr. Post was disposed to regard it as an important modification.

———, a delegate, referred to the use of Dr. Martin's elastic bandage after aspiration. So far as his experience went, the results obtained had agreed with those reported by Dr. Martin, and had been very satisfactory. In simple cases of dropsy of the knee-joint, where he had aspirated, and then applied the bandage, there had been no return of the fluid. Of course as much benefit in cases in which the fluid was purulent could not be expected.

DR. S. D. GROSS, of Philadelphia, remarked that he had employed aspiration a few times, not only in the treatment of accumulations of fluid in the knee-joint, but also in other joints, and it seemed to him that aspiration should be regarded simply as an auxiliary measure. In all cases, proper attention should be paid to the general condition of the constitution of the patient; and to the aspiration might be added a variety of means which would tend to bring about a condition that could not be established by aspiration alone. To the aspiration, counter-irritation, elastic compression, etc., could be added, with benefit.

DR. I. N. QUIMBY, of New Jersey, preferred to resort to other means than aspiration in cases in which there was only a small accumulation of fluid in the joint.

DR. MARCY, in closing the discussion, remarked that he heartily indorsed the remarks made by Dr. Gross; but the time allotted for his paper did not permit him to enter upon the general consideration of the subject.

DR. E. B. TURNIPSEED, of Columbia, S. C., then exhibited a *new surgical needle, curved, and spring-clamp at the point; also a new apparatus for treating fracture of the clavicle, with cases; and also described a new method of reducing dislocation of the elbow-joint*, with cases.

The new apparatus for treating fracture of the clavi-

cle consisted in broad leathern collars encircling the shoulders, and united behind by straps from the upper portion of the band, and in front by straps from the lower portion of the collars.

The new method of reducing dislocation of the elbow-joint consisted in standing behind the patient, grasping the arm just above the elbow with one hand with the thumb upon the olecranon process, grasping the wrist with the other hand, and, while extension and counter-extension was being made, to suddenly extend the forearm, and at the same time make pressure upon the olecranon with the thumb.

Dr. S. D. Gross, of Philadelphia, remarked that there was nothing more easy than reduction of a recent dislocation of the elbow-joint. The plan suggested by Dr. Turnipseed was substantially that recommended by Dr. Waterman, of Massachusetts, several years ago.

Dr. J. S. Dodge, of Bristol, Ind., remarked that Dr. Turnipseed's method was the same as that taught by Dr. J. W. Greene at the University of Michigan.

Dr. J. C. Hughes, of Keokuk, Iowa, thought the method of treating fracture of the clavicle suggested by Dr. Turnipseed was no better than several appliances already in the hands of the profession. It was, perhaps, very convenient, but he failed to see its special value. Again, with regard to the suggestion made with reference to reduction of dislocation of the elbow-joint, he thought it did not possess the common sense that did the method by lifting the coronoid process out of the olecranon fossa.

Dr. L. A. Sayre, of New York, thought if the front strap was removed that Dr. Turnipseed's apparatus would be improved. It would then be very much like the old-fashioned figure-of-eight bandage, and no better.

Dr. W. W. Dawson, of Cincinnati, O., remarked that no apparatus had ever been devised which could keep the shoulder *outward*, except by making a lever of the arm, which it was impossible to do practically because of the pressure produced upon the vessels and the nerves. He thought the action of Dr. Turnipseed's apparatus was to bring the points of the shoulders nearer to each other, and therefore necessarily increased the shortening.

Dr. A. C. Post, of New York, thought that the apparatus did not possess any special advantages.

Dr. Glenn, of Nashville, Tenn., referred to an operation performed by the late Dr. Paul F. Eve, of Nashville, for fracture of the clavicle, which consisted in cutting down and wiring the fragments together with silver wire, closing the wound, and leaving it to unite. During the last five years of his life he succeeded in obtaining eminently satisfactory results in many cases.

Dr. W. T. Briggs, of Nashville, Tenn., remarked that the cases upon which Dr. Eve operated were those of ununited fracture of the clavicle, and that he merely suggested the operation for simple fracture of the bone.

Dr. Glenn remarked that he knew personally of one case in which Dr. Eve performed the operation for recent fracture, and with good success.

Dr. Turnipseed, in closing the discussion, remarked that the strap in front upon his apparatus was intended simply to keep the collars upon the shoulders.

### CHRONIC DISLOCATION AT THE HIP-JOINT.

Dr. C. V. Mothram, of Lawrence, Kan., reported a case of chronic dislocation at the hip-joint.

Dr. W. W. Dawson, of Cincinnati, O., exhibited several specimens of

### VESICAL CALCULI,

after which the Section adjourned, to meet on Wednesday, May 7th, at 8 P.M.

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### Wednesday, May 7th.—Second Day.

The Section was called to order at 8 P.M. by the Chairman.

The minutes of the previous meeting were read and approved.

The first paper was read by Dr. I. N. Quimby, of Jersey City, and entitled

### CONSERVATIVE SURGERY.

It consisted essentially of a paper formerly read before the Section at the Annual Meeting, held in Chicago, in 1877, the case at that time being incomplete.

Dr. Lewis A. Sayre, of New York, followed with a supplementary

### REPORT ON THE TREATMENT OF POTT'S DISEASE BY MEANS OF THE PLASTER-OF-PARIS JACKET.

The report contained a complete analysis of one hundred and eleven cases, with extended reference to opinions expressed by eminent surgeons both in this country and in Europe.

The paper was discussed by Drs. T. Clay Maddux, of Maryland; A. C. Post, of New York; H. O. Marcy, of Massachusetts; E. H. Dugas, of Georgia; I. N. Quimby, of New Jersey; W. A. Byrd, of Illinois; T. A. McGraw, of Michigan; and closed by Dr. Sayre.

On motion by Dr. Maddux, the thanks of the Section were tendered to Dr. Sayre for his valuable report.

### AMPUTATION BY OPEN CONE-SHAPE METHOD.

Dr. J. E. Link, of Terre Haute, Ind., read a paper upon the above subject, in which he claimed as advantages a better shaped stump and better results than by any other method; and also claimed that it was a method which originated with himself, and had not been adopted by any other surgeon.

Dr. W. F. Peck, of Davenport, Iowa, remarked that he had seen the same operation performed in Bellevue Hospital, New York, long ago, by Dr. James R. Wood.

The paper was discussed by Drs. Beck, of Ohio; Marcy, of Massachusetts; Byrd, of Illinois; Quimby, of New Jersey; Garcelon, of Maine; Fuller, of Maine; and closed by Dr. Link.

### URINARY CALCULUS WITH CONSIDERATION OF ITS HYGIENIC, ETIOLOGICAL, PATHOLOGICAL, AND SURGICAL RELATIONS—WITH FORTY-SIX CASES,

was the title of a paper read by

Dr. H. F. Campbell, of Augusta, Georgia.

The bilateral method was the one employed in all the operations.

The paper was discussed by Drs. Dawson and Mussey, of Cincinnati, O., and Dowell, of Texas.

The Section then adjourned, to meet at 8 P.M. Thursday, May 8th.

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### Thursday, May 8th.—Third Day.

The Section was called to order at 8 P.M., by the Chairman.

The minutes of the previous meeting were read and approved.

ÉCRASEUR FOR REMOVAL OF UTERINE TUMORS.

A paper by DR. WILLIAM SCOTT, upon the above subject, was presented by the Secretary.

TREATMENT OF HEMORRHOIDAL TUMORS BY CARBOLIC ACID INJECTION,

was the title of a paper read by DR. J. R. WEIST, of Richmond, Ind., Secretary of the Section. Dr. Weist called attention to that method of treating hemorrhoidal tumors, believing that it was superior to any yet employed. The theoretical objections that had been raised against it were the occurrence of thrombosis and embolism. By a series of experiments, Dr. Weist had reached the conclusion that carbolic acid had almost no coagulable power upon blood within veins. A clear idea of the method and the substance of Dr. Weist's paper, aside from that mentioned, can be obtained by reference to vol. xv., p. 451, of the MEDICAL RECORD.

DR. A. C. POST, of New York, referred to Salmon's method, commonly known as Allingham's method, which had been performed many hundreds of times with almost uniform success in the practice of surgeons in this country, and regarded it as probably the most certain and the most safe mode of treatment at our command.

DR. W. A. BYRD, of Illinois, referred to dilatation of the sphincter by the closed hand so as to allow the pile above to get well at the same time with the cure of the ruptured sphincter.

DR. W. W. DAWSON, of Ohio, remarked that his surgical operations for piles had been uniformly successful. He used the knife for the external, the ligature for the internal pile, and he had not yet had an accident follow the patient. He thought one secret of success was *positive* strangulation of the pile. He had not found it necessary to paralyze the sphincter before the operation. With regard to the new method, if experiments proved that there was no danger from embolism, it might be a good method.

DR. J. W. MURPHY, of St. Paul, Minn., referred to *twenty* cases which he had treated by the use of carbolic acid injections, and with good results in all.

DR. H. W. BROWN, of Texas, remarked that he had been using the new method in preference to either the ligature or the knife. He used the carbolic acid as nearly pure as possible, simply diluting it with a small quantity of alcohol, and he threw only a few drops into each tumor.

DR. E. SMITH, of Detroit, Mich., referred to treatment of piles by transfixing the tumor with a hot iron.

DR. A. B. COOK, of Louisville, Ky., referred to his successful treatment of hemorrhoids by means of carbolic acid injections, and the form in which he ordinarily used it was one-half carbolic acid, one-fourth glycerine, and one-fourth distilled water. The solution with glycerine should be perfectly clear; if not so it was evidence that the acid was impure, and should not be used. He emphasized the importance of introducing the point of the needle *into* the cavity of the tumor, thus avoiding the sloughing which would follow injection of the cellular tissue.

DR. DAWSON emphasized the non-use of the knife in the treatment of internal piles, and thought that for the removal of old hemorrhoidal tumors something more radical than injections was required.

DR. A. C. POST thought that no *good* surgeon, at the present time, used the knife in the treatment of internal piles.

The next paper was read by DR T. CLAY MADDUX, of Maryland,

ON THE NATURE OF GONORRHŒA,

and was referred without discussion.

PERITYPHLITIC ABSCESS OPENING INTO THE BLADDER AND THE RECTUM, WITH PATHOLOGICAL SPECIMEN.

DR. THOS. F. ROCHESTER, of Buffalo, N. Y., presented a pathological specimen of typhlitic abscess opening into the bladder and the rectum, with its clinical history. Of perityphlitic abscess he had had twenty-three cases, and in nearly all he had obtained an autopsy. It was usually excited by disease in the vermiform appendix. The foreign bodies which were found, and so frequently called grape-seeds, fæcal calculi, etc., were in very many instances *gallstones*. In the case reported, the foreign body was originally a gallstone, as shown by analysis. The abscess opened into the bladder and the rectum, and the case was of about three years' duration. The patient asked for an operation, and the propriety of granting his request was fully recognized at post-mortem.

DR. A. M. POLLOCK, of Pittsburg, Pa., exhibited and described

A NEW INSTRUMENT FOR THE ADMINISTRATION OF ANÆSTHETICS.

It consists of a spiral cylinder open at both ends so as to freely admit atmospheric air. The specimen exhibited was about 8 inches in length by 4½ inches in diameter, and was made of a simple brass wire coiled spirally. The cylinder was to be enveloped by a towel. Its advantages were economy, cleanliness, and safety.

The Section then adjourned. After the adjournment, Dr. Sayre, at the request of the Section, applied the plaster-of-Paris jacket to two cases of Pott's disease, for the purpose of giving the members a practical demonstration of the method of treatment.

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## SECTION ON STATE MEDICINE, PUBLIC HYGIENE, MEDICAL JURISPRUDENCE, CHEMISTRY, AND PSYCHOLOGY.

DR. JOHN S. BILLINGS, of Washington, D. C., Chairman.

DR. J. T. REEVE, of Appleton, Wis., Secretary.

TUESDAY, MAY 6th.—FIRST DAY.

The Section was called to order at 3 P.M., by the Secretary, who announced that owing to the temporary illness of Dr. Billings, it was necessary to elect a chairman *pro tem.* On motion, DR. J. L. CABELL, of Charlottesville, Va., was elected Chairman.

DR. A. N. BELL, of New York, announced the death of Dr. Wm. N. Compton, the former Chairman of the Section on Medical Jurisprudence.

DR. E. GRISSOM, of North Carolina, paid an eloquent tribute to the memory of Dr. Compton, who died while in the service in the late epidemic of yellow fever. The Chairman appointed Drs. E. Grissom, of North Carolina, J. M. Toner, of the District of Columbia, and F. Pratt, of Michigan, a committee to draft suitable resolutions and present them to the Association in General Session.

THE REGULATION OF MEDICAL PRACTICE BY STATE BOARDS OF HEALTH, AS EXEMPLIFIED IN ILLINOIS,

was the title of a paper read by DR. H. A. JOHNSON, of Chicago, Ill.

The paper was a full exposition of the thorough reform effected under the provisions of the new law.

DR. J. H. RAUCH, of Chicago, spoke of the success of the present system of regulating medical practice, and the good it had accomplished for the people gen-

erally, as well as for the profession in elevating its grade.

Dr. Gihon, of the United States Army, believed in the thorough regulation of the practice of medicine by the State, in such a manner as to prevent quacks from imposing upon the public, simply because they could show a diploma.

The discussion was prolonged at considerable length.

STATE MEDICAL SOCIETIES AND STATE MEDICINE.

Dr. S. E. Chaillé, of New Orleans, La., read a paper upon the above subject, which, on motion by Dr. Bell, of New York, was referred to the Association in General Session. [See report of General Session, for Thursday, May 8.]

PSYCHO-PHYSIOLOGICAL HAND,

was the title of a paper read by Dr. E. Seguin, of New York City.

The theory of the paper was that, in cases of idiots, all education of intellect must begin by education of the senses. An interesting case was related.

The Section then adjourned, to meet on Wednesday, May 7th, at 3 P.M.

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Wednesday, May 7th.—Second Day.

The Section was called to order at 3 P.M. by the Chairman.

Dr. E. Grissom, of North Carolina, read a fitting memorial on the death of Dr. Wm. H. Compton, of Mississippi.

The resolutions accompanying it were seconded by Drs. Taylor, of Kentucky, and Browning, of Mississippi.

THE NEW PRINCIPLES OF PROTECTIVE (PRIVATE) SANITATION IN ITS RELATION TO PUBLIC HYGIENE,

was the title of a paper sent by Dr. H. R. Storer, of Newport, R. I., and read by Dr. E. S. Dunster, of Michigan.

The paper was referred to the Committee on Publication.

REPORT ON INTERVENTION OF PHYSICIANS IN EDUCATION.

Dr. E. Seguin, of New York, made some remarks upon the above subject.

On motion, the address of the Chairman was referred to the Committee on Publication.

Resolutions relating to the next census and the organization of the profession in all the States were then offered and adopted, and the Section adjourned, to meet on Thursday, May 8th, at 3 P.M.

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Thursday, May 8th.—Third Day.

The Section was called to order at 3 P.M. by Dr. J. F. Hibbard, of Indiana, the Chairman-elect.

Dr. S. E. Chaillé, of New Orleans, La., presented resolutions looking toward the appointment of a committee on medical organization. The report was adopted. [See minutes of General Session for Friday, May 9th.]

THE MEDICAL EXAMINER SYSTEM OF MASSACHUSETTS,

was the title of a paper read by Dr. F. A. Harris, of Massachusetts. It was referred to the Committee on Publication.

The Report of Dr. Billings, Chairman of the Committee on the question of hospitals, was read. It was accompanied by diagrams and lithographic illustrations of hospitals for small towns, on approved plans. It was referred to the Committee on Publication, with instructions to consult with Dr. Billings with reference to the manner of publication.

Dr. Alban S. Payne, of Virginia, presented a paper on

THE TREATMENT OF SMALL-POX IN THE STAGE OF INITIAL FEVER,

after which the Section adjourned.

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## SECTION ON OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY.

Dr. Hermann Knapp, of New York City, Chairman.
Dr. A. W. Calhoun, of Atlanta, Ga., Secretary.

Tuesday, May 6th.—First Day.

The Section was called to order at 3 P.M. by the Chairman.

Dr. E. Williams, of Cincinnati, was elected Honorary Chairman, and Dr. B. A. Pope, of New York, Vice-President.

IVORY EXOSTOSIS OF THE ORBIT.

Dr. E. Williams, of Ohio, read a paper upon the above subject, which consisted mainly in the history of a case. In future he would attempt to remove the exostosis without removing the eyeball.

IMPAIRMENT OF SIGHT PRODUCED BY EXCESSIVE DOSES OF QUININE.

Dr. O. H. Voorhees, of Memphis, Tenn., read a paper upon the above subject, and referred to cases.

Dr. H. Knapp, of New York, then gave

DEMONSTRATIONS OF ANATOMICAL AND MICROSCOPICAL SPECIMENS, AND OF INSTRUMENTS AND APPARATUS.

SYPHILITIC DISEASES OF THE CORNEA.

A prolonged discussion upon the above subject was held, after which the Section adjourned, to meet on Wednesday, May 7th, at 9 A.M.

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Wednesday, May 7th—Second Day.

The Section was called to order at 9 A.M. by the Chairman.

CATARACT.

Drs. B. A. Pope, of New York, A. W. Calhoun, of Georgia, and H. Knapp read papers on cataract extraction, and a general discussion followed, which was participated in by a large number of members.

The Section, at 11 A.M., adjourned, to meet at 3 P.M.

At 3 P.M. the Section was called to order by the Chairman.

The discussion of the subject of cataract extraction was continued.

AN OPERATION FOR THE CURE OF CYSTOID CICATRIX,

was the title of a paper read by Dr. D. S. Reynolds, of Louisville, Ky. In the proposed operation a thread was passed through the cornea; and the author stated that he had never seen keratitis follow the operation.

CURE OF XEROPHTHALMIA BY OPERATION.

Dr. Eugene Smith, of Detroit, Mich., read a paper upon the above subject. The result of the operation was permanent union of the ball and the lids.

Dr. Knapp, of New York, presented *pathological specimens*. One, a case of plastic cyclitis; the other

a ciliary body containing a chip of brass. A brief clinical history was given with the specimens. The Section then adjourned, to meet on Thursday, May 8th, at 9 A.M.

THURSDAY, MAY 8TH.—THIRD DAY.

The Section was called to order at 9 A.M. by the Chairman.

The Chairman read a paper

ON DISEASE OF THE MASTOID PROCESS.

The paper gave rise to prolonged discussion, which was participated in by Drs. Leartus Conner, of Detroit, Mich.; B. A. Pope, of New York; E. Williams, of Cincinnati, Ohio; A. W. Calhoun, of Atlanta, Ga.; E. Smith, of Detroit, Mich.; and A. H. Voorhees, of Memphis, Tenn.

There being no further business before the Section, it adjourned.

## STATE MEDICAL SOCIETY OF ILLINOIS.

(Special report for THE MEDICAL RECORD.)

TUESDAY, MAY 20, 1879.—FIRST DAY.

THE Illinois State Medical Society was called to order in Gillett's Opera House, Lincoln, Ill., at 10.30 A.M., May 20, 1879, by the President, DR. E. P. COOK, of Mendota.

The Society was welcomed to the city of Lincoln with a very cordial address delivered by T. T. BEACH, ESQ.

DR. E. INGALS, of Chicago, replied in behalf of the Society, in a manner which called forth unanimous applause.

After adopting the order of business for the meeting, the Society listened to the

ADDRESS OF THE PRESIDENT.

The paper covered a wide variety of topics, chief among which were discussions of the importance of sanitary science and State medicine, the adoption of the metrical system, and the ever-pressing subject of advance in medical education. While enforcing the importance of continual progress in all that can elevate the qualifications and standing of the profession, the orator refrained from insisting upon the adoption of any special measures for the accomplishment of these ends, other than those which the wisdom of those charged with the instruction and guidance of the public inside and outside of the ranks of medicine might devise.

AFTERNOON SESSION.

The business of the afternoon session was commenced with a paper by DR. D. PRINCE, of Jacksonville, on

THE SANITATION OF SMALL CITIES—A RECOMMENDATION OF TILE-DRAINING AND SEWERAGE.

PROF. OWENS, of Chicago, read the *Report of the Committee on Surgery*, consisting of a review of recent opinions regarding the treatment of hemorrhoids, furuncles, atony of the bladder, dislocation of the clavicle, Annandale's operation for the removal of tumors from the nasal passages, the antiseptic property of thymol, treatment of nævus, Hebra's method of dealing with rodent ulcer of the skin, Dupuytren's finger contraction, Callender's treatment of wounds without carbolic spray, surgical pathology of nerves, skeletal measurements, a suit for malpractice in the treatment of a fractured thigh.

The paper was discussed by PROF. E. ANDREWS, who called the attention of the Society to the long recognized fact of the asymmetry of the human skeleton, to the value of ergot in enlargements of the prostate, to the treatment of lupus by scraping—he was in favor of the operation—the finger-nail forming the best instrument. The paper was further discussed by

DR. HALKER, who recommended the treatment of hemorrhoids by injection with liq. ferri persulph. He related a case of nævus on the breast of a young girl, also treated in the same way with success.

DR. PRINCE recommended the treatment of lupus by galvanic cautery. He preferred the same method for hemorrhoids.

PROF. HOLLISTER spoke of the histological changes which cause lupoid growths, and thought that removal of the entire morbid growth was necessary to success.

DR. C. TRUESDELL, of Rock Island, then read a paper on the

TREATMENT OF FRACTURES OF THE FEMUR,

taking issue with the doctrine that such fractures must necessarily result in shortening.

DR. PRINCE thought that equally good results might be obtained with almost any of the ordinary modes of treatment of these fractures.

DR. GILL did not believe in the need of perfect coaptation of the extremities of the fractured bone when the dressing is applied.

REPORT OF THE COMMITTEE ON OBSTETRICS.

DR. C. C. HUNT, of Dixon, presented the report of the Committee on Obstetrics—to the effect that little that was new had appeared in the literature of the subject during the past year. He, therefore, related his favorable experience of the use of hot-water injections in uterine hemorrhage.

DR. INGALS recommended that the injection be thrown into the uterus instead of against the cervix.

REPORT OF THE COMMITTEE ON OPHTHALMOLOGY.

The report of the Committee on Ophthalmology and Otology was read by PROF. S. J. JONES, of Chicago.

STATE MEDICINE.

PROF. LYMAN, of Chicago, read a paper on State Medicine, taking the ground that the ordinary duties of sanitary officials should be restricted to the public places and relations of a community, and that the private life of citizens should not be disturbed by the intermeddling of such officers.

WEDNESDAY, MAY 21, 1879.—SECOND DAY.

*Committee on Nominations:* A committee on nominations, consisting of one member from each county represented in the Society, was elected.

A committee of three was appointed by the President to recommend action by the Society relative to the passage of the bill now before the Legislature regulating the commitment of the *Insane to Asylums.*

This bill abolishes, in certain cases, a trial court for the commitment of the insane; indeed, in all cases except where such trial is demanded by the patient.

REPORT OF COMMITTEE ON PRACTICAL MEDICINE.

The Report of the Committee on Practical Medicine was presented by the Chairman, DR. G. W. JONES, of Danville. The paper was a well-written and vivacious summary of the diseases and the therapeutical

measures with which general practitioners are most familiar. The reporter adopted in full the "germ theory."

CHLORAL AND THE BROMIDES IN OBSTETRICS.

DR. NORRED, of Lincoln, presented a paper on the use of these articles in obstetric practice, recommending them highly as a means of overcoming unpleasant nervous symptoms in such cases.

MEDICAL EDUCATION.

DR. E. INGALS, of Chicago, read a report on medical education, urging the limitation of medical charities, and an elevation of the standard of education, so as to reduce the number of practitioners and increase the emoluments of the profession. The writer advised a diminution of the number of the colleges, and their government by strong boards of trustees separate from the faculties, which should consist of numerous professors, well paid by funds secured by endowment, rather than by the fees derived from students, so that they might be independent of all desire to increase the number of students. The period of instruction should be not less than three years, with terms of nine months each. Graduates should be twenty-five years of age, and should have a good English education. The final examination should be held by boards of examiners, independent of the colleges, to be appointed, perhaps, by the State medical societies. A graded course of instruction was advised by the writer.

PROF. ANDREWS, of Chicago, read a paper entitled

"THE CHIROPODISTS."

According to the doctor, the corn-doctors were improving in skill and respectability in such a way as to promise the final establishment of a specialty as distinct as that of dentistry.

PROF. HOLMES, of Chicago, read a paper on

TRICHIASIS.

The usual cause of that disease was chronic conjunctivitis, especially that form which produces contraction of the cartilages of the lids, stimulating the latent hair-follicles of the part. Sometimes the disease was caused by absorption of the inner margin of the lid, bringing its hairy border against the cornea. That, however, was not to be considered true trichiasis. The opinion of the writer was to the effect that simple removal of a portion of the integument of the lid would seldom result in relief of the difficulty. A very good operation consisted in splitting the lid into two flaps—the anterior, containing the integument, with its hair follicles, and the muscles of the lid. The anterior flap might then be moved upward on the posterior flap.

DR. HOTZ, of Chicago, had practised the method of making an incision parallel to the tarsal margin of the lid down to the cartilage, and then stitching the margin of the wound to the cartilage in such a way as to evert the cartilage. That often gave good results.

PROF. JONES, of Chicago, followed with some remarks upon the conjunctivitis which was caused by trichiasis, advocating the use of topical medication in these cases, instead of adopting operative measures, except as a last resort.

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AFTERNOON SESSION.

The *Report on Gynæcology* was presented by the Chairman of the Committee on Gynæcology, PROF. FITCH, of Chicago. The paper was a summary of the most recent opinions regarding the surgical treatment of lacerations of the cervix uteri. The author gave a full description of his own favorite method of operation, with notes of illustrative cases.

Prof. Fitch also exhibited a convenient apparatus for vaginal injections, devised by Dr. Lord of Plano, consisting in a modification of the fountain syringe and bed-pan.

REPORT ON NECROLOGY.

The Chairman of the Committee on Necrology, Dr. Worrell, of Bloomington, announced that owing to an accident his manuscript had been left at home. He desired to have the report passed, with permission to insert it in the Transactions of the Society. The request was granted.

MRS. PROF. STEVENSON, of the Woman's Medical College, Chicago, read a very interesting paper on

THE PHYSIOLOGY AND PATHOLOGY OF THE SYMPATHETIC NERVOUS SYSTEM.

The report was too much condensed to admit of any abstraction, and was a model of what may be done in the way of the application of physiological knowledge to the problems presented in the diagnosis and treatment of disease.

PROF. JEWELL followed with remarks on the anatomical relations of the sympathetic nervous system.

PROF. LYMAN called attention to the importance of addressing remedies to the nervous system in the nervous disturbances of diseases not primarily connected with that system.

TRACHEOTOMY IN CROUP.

DR. H. Z. GILL, of Jerseyville, read a paper on Tracheotomy in Croup, in which he gave all the accessible statistics of the operation as performed during the past year in the State of Illinois. It was illustrated by the exhibition of colored anatomical plates, and of the instruments used in the operation.

BILLS OF PHYSICIANS—EXPERT EVIDENCE.

The Secretary read a report from a committee to which, at the last meeting, was referred a communication from the Centennial Medical Society of Southern Illinois, calling upon the State Medical Society to take action looking to such change in the laws of the State as shall give the bills of physicians in case of last illness equal preference with the most favored claims against the estate of the deceased. Also to make provision for the adequate compensation of physicians who are compelled to make investigations and to testify in courts of law as experts. The committee presented a collection of legal decisions relative to the matter of testimony—notably the opinions of the Supreme Courts of Alabama and Indiana—and recommended that members of the medical profession should insist upon their rights in such cases whenever they occurred. The committee also recommended that a standing committee should present an annual report of all cases in which such claims might be adjuicated by the courts. As for matter of the last services in case of death, the committee recommended that the profession should use its individual influence with members of the Legislature to secure the necessary legislation.

The Treasurer, Prof. Hollister, presented his report, indicating a very healthy condition of the finances of the Society. The announcement of a balance of $239 in the treasury was received with great applause.

REPORT OF THE COMMITTEE ON NOMINATIONS.

The Committee on Nominations reported the following: For *President*, E. Ingals, M.D., of Chicago; for *First Vice-President*, G. W. Jones, M.D., of Danville; for *Second Vice-President*, C. C. Hunt, M.D., of Dixon; for *Treasurer*, J. H. Hollister, M.D., of Chicago; for *Assistant Secretary*, Washington West, M.D., of Belleville. Place of meeting for next year, Belleville, Ill.

A full list of committees was also reported. The recommendations of the Nominating Committee were unanimously adopted by the Society.

EVENING SESSION.

DR. N. S. DAVIS, of Chicago, gave an interesting lecture of a semi-professional character, chiefly devoted to the relation of the profession to the community.

EXECUTIVE SESSION.

The Society then went into executive session. The Secretary read a series of resolutions prepared by Dr. Ingals to the effect that the Society request all regular medical colleges to institute preliminary examinations of students—six months terms of lectures, by the regular faculty, and that students be required to study five years before graduating. The resolutions were all adopted.

The Society then proceeded to nominate delegates to the American Medical Association, to the State Medical Societies of Indiana, Kentucky, Missouri, Iowa, Wisconsin, and Michigan.

The Chairman appointed Drs. Lyman, Rauch and Nesbitt a committee to draft a bill regulating the hygiene of school-houses, to report at the next meeting.

DR. WORRALL, of Bloomington, was appointed to report at the same meeting on the antagonism between malaria and phthisis.

A vote of thanks to the citizens of Lincoln and to Dr. Wilbur, of the Asylum for Feeble-minded Children, for their hospitalities to the members of the Society, was passed.

The President-elect, Dr. Ingals, was then introduced by the retiring President, Dr. E. P. Cook.

The Society then adjourned.

## THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

*Special Meeting, April* 14, 1879.

DR. A. E. M. PURDY, VICE-PRESIDENT, IN THE CHAIR.

THE RESPONSIBILITY OF THE MEDICAL PROFESSION FOR THE ABUSES OF MEDICAL SERVICES.

AT a stated meeting, held March 24, 1879, DR. F. R. STURGIS, house-physician at the New York Dispensary, read a paper upon the above subject, which was made the special order for April 14, 1879. The discussion was opened by Dr. Sturgis, who stated that the motives he had in view in bringing the subject before the profession were *twofold*. 1. The paper was intended as a purely medical address to medical men, calling their attention to the responsibilities which fall upon them for the abuses of medical charity; to show that trustees of dispensaries and the State Board of Charities had been interested in this subject; to show that there was a proposition to check, to a certain extent, the abuses which existed; to express the opinion that if proper authority was vested in the house-physician the greater portion of the abuses could be checked; but to carry the plan into operation the co-operation of the attending physicians and surgeons was required. Some attending physicians and surgeons had objected to any special plan which looked toward the correction of abuses, and had said that so long as they had cases they did not care whether they were suitable persons for charity or not. If that feeling were general there would be no earthly use in calling attention to abuses of medical charity. But he hoped and believed that the medical profession were sufficiently alive to the fact that in their positions they were, to a certain extent, trustees, and were responsible for the abuses. 2. He hoped that this abuse could be corrected. It could not be done at once; time was required. Certain impressions must be corrected; and to do that, public opinion must be educated upon certain points. Many of the people were under the impression that the physicians were obliged to give them medical advice simply because they asked for it. In order to check abuses, concerted medical action was necessary. He thought it proper that the Medical Board of Dispensaries should have communication with the Board of Trustees, perhaps through the house-physician. The propositions he had laid down in the paper were suggestive rather than any particular plan. He believed that the subject should not be considered so much from a charitable point of view as from a politico-economical standpoint. He also thought that the charity-wheel was overridden to a very great extent, and that the sooner a large percentage of medical charity was swept away the better it would be for a correct understanding of the subject.

DR. O'SULLIVAN believed there was something wrong with the profession in this matter. There had been neglect, indifference, if you wish, to the entire subject. Why was it that the agitation of such questions was left almost entirely to a few? In that particular, physicians as a body were at fault, and failed to energetically push the question. The correction of the abuse must be reached through public opinion. The influence of prominent citizens should be secured; and if a united profession would grapple the subject, he had no doubt that success would be obtained.

DR. H. D. NOYES remarked that the practical points which Dr. Sturgis had brought to our notice in his paper were twofold: 1. The relation existing between the managing boards of public charitable institutions and the medical profession; and, 2. What measures could be adopted to prevent the unworthy from demanding charity in our public medical institutions. Upon the first question we were a few years ago thrown into great excitement by certain occurrences in the Presbyterian Hospital in this city; and the profession then arose in indignation. His own experience in connection with the management of public charitable medical institutions had been such as to lead him to have great respect for the managing boards. He had found that when they were approached in a proper manner, and reasonable propositions were laid before them, they were quite as ready to treat them with consideration as any other class of citizens. In the Eye and Ear Infirmary, an institution with which he had been connected for several years, when it was found that the management was becoming loose, a proposition was made that one of the medical staff should be selected to largely control the management of the institution with reference to the admission of patients. That office was created, and its functions had been carried out during the past five years with admirable results.

No reasonable request made by the medical man had been rejected by the general board of management. There was no doubt that a considerable number of persons who came were totally unworthy of charity, and were able to pay a certain amount of compensation. That was largely due to a faulty public opinion. It was largely a simple outcry of greed, an effort to save at the expense of some one else. It had perhaps also arisen from carelessness upon the part of medical men who attended in these institutions. That such was the case must be admitted; but he asserted that medical men, so far as his knowledge extended, had for years and years strenuously and persistently attempted to eliminate the persons who had no business to come there for medical advice. During the past year extra efforts had been made to keep from the Eye and Ear Infirmary those who did not belong there. Another observation: The medical profession was responsible for abuses in our public institutions in a sense to which allusion had not been made. A great many medical men said thoughtlessly to patients who gave them a little perplexity, "Go to a dispensary." He was unable to state how many times it had occurred to him to hear patients say, "Doctor So-and-so told me to come here." Such abuse was widespread, not only in the city, but throughout the country. While ready to give his services to those deserving of charity, he felt that a very great portion of the abuse of medical charity came from want of consideration upon the part of some physicians, and a desire to get rid of the case by sending it to a dispensary. He thought something like a "board of detection" was necessary in all public medical charitable institutions, in order to correct the abuses and prevent the admission of improper patients. The real remedy existed in the discovery of the facts relating to the financial condition of the applicant, but how they were to be always discovered he was unable to say. Another thought: Every physician in New York treated in his office a very large number of poor patients; but he was sorry to say that, while physicians were usually willing enough to treat people gratuitously, they were too often ashamed to accept a small fee. He believed that much of our difficulty regarding the abuse of medical charity would be obviated if those in high places, as well as those who did not have large incomes, were willing to accept small fees for their advice and treatment.

Dr. H. E. Crampton remarked that until the hospitals and dispensaries could agree upon some definite plan of the management of medical charity we should not arrive at any satisfactory conclusion. He suggested that the simplest plan would be to have a salaried officer, paid by the institution for the district which he inspected, who should visit houses and receive applicants for medical charity, and that only those who came to the dispensary endorsed by such inspector should receive advice and medicine. In that manner all outsiders would be cut off, and all frauds would be more liable to be exposed. It would be a step toward the provident plan.

Dr. Henry remarked that the subject under discussion involved the question whether young men should have the opportunity to live by their profession or not, and also whether there should be any progress in medicine, because the work necessary to such progress must be done by the young men. His impression, based upon nine years' dispensary experience, was that the abuses were, to a great extent, due to physicians themselves, and a willingness on their part to do the work without compensation. He also thought the Boards of Trustees were considerably to blame. He decried appropriation of a single dollar of money to any but thoroughly organized dispensaries wherein medical officers had prominent places. If the profession would discountenance special dispensaries, and centre its influence upon the old and established institutions, the evil complained of could to a great extent be reached.

Dr. Henry then commented at some length upon the "outside affair" at the New York Hospital, and characterized it as the "biggest of humbugs," and an establishment erected "to elevate a few at the expense of many." If it was desired to reach the full inside history of the affair, ask the doctors of the New York Hospital, and "they would *not* answer;" "they were afraid of the influence of the trustees." It was only by having regular institutions, well endowed, and a fair representation of bold, good doctors in the Board of Management, that we should ever have them properly administered.

Dr. C. R. Agnew remarked that the subject was one which must be carefully discussed in order to bring out the general principles involved, and so carry the feeling of the Society, and of the profession in every thoughtful, earnest, and non-selfish effort to correct what was certainly, in the language of the paper, "an abuse." It was not a new abuse, but was one which had floated down the stream of charity ever since attempts had been made by one man to aid his fellow-man who happened to be in a dependent position. The abuse of medical charity had grown, in a great measure, from: 1, the immense burden of pauperism cast upon us; and, 2, the great activity created in the study of medicine within the last twenty-five years, the latter bringing in vast numbers of men who were willing to serve in public institutions in order that they might have improved opportunities to acquire experience.

Dr. Agnew thought that if a move was made in the County Medical Society, simply with the view of securing "bread and butter" for ourselves, we should do injustice to ourselves, and should not accomplish the reform desired. He was sure that by such action our professional brethren would not be the beneficiaries. Success in obtaining a livelihood depended upon certain questions of political economy, and would be settled without much interference upon our part. As many would get a living as the market could afford, and no more. It was our duty to study the question so broadly as to cleanse the market, so to speak, and give the laborer a just opportunity. He thought that could be done by bringing those who were responsible for our medical charities to consider the subject in a thoughtful and scientific manner. He believed that ignorance was at the bottom of the abuse, and that, in general, the managers of charitable institutions were ignorant of the literature of pauperism. One of the first things to be done to correct the abuse of medical charity was *not* to give medical advice, or medicine, or lodging in a hospital bed to an individual who was financially capable of being attended to, and receiving benefit anywhere else. He believed that that principle should obtain in every department of charity, medical or otherwise. Nothing should be given to a poor man for which, if capable, he did not give some equivalent. The same principle should equally obtain in endowed hospitals. There was great danger to the cause of true charity from endowed hospitals. He believed that the door of EVERY hospital or dispensary should be guarded by a cautious, lynx-eyed verger, who should approach the applicant with the spirit of a brother, and carefully uncover his financial condition. Then

the professional brother outside would obtain the benefit arising from the patronage of those who were unworthy of charitable aid. It could not be done by stamping our feet and attempting to coerce them, but by a scientific, painstaking, and patient method. It must be shown to them that there were certain principles upon which medical charity could be conducted without injury to the beneficiaries. That exceptional abuses would occur was inevitable; and they would continue to take place to the end of time. So long as men were in hospitals and dispensaries who were not experts, there would be persons who would studiously and consecutively lie to gain admission. He was entirely opposed to the principle of raising money, by excise or any other method, for medical charity in the city of New York. He thought it would not be persisted in when our institutions were more studiously managed with reference to the real necessities of their beneficiaries.

With reference to corporate dispensaries, it was, perhaps, an idea to be entertained; but he was quite sure if the members of the society could be induced to read the literature of the treatment of preventable pauperism, and the doctors in the dispensaries could be made to do the same thing, many of the abuses would disappear. The right kind of a man at the door of these institutions would be followed by an immense correction, for he believed there was as much veracity south-east of Tompkins Square as there was north-west of Madison Square.

Dr. E. S. Bates believed that, in a great measure, too much charity was a curse rather than a blessing. He also believed that the physician should be compensated for his services in these institutions, the same as was the baker, the butcher, or the nurse, and that by serving without compensation the physician demeaned his profession, and contributed directly to the increase of crime and pauperism. A foundling asylum had been built to prevent infanticide, but the increase of illegitimate children in the city had been very great since it was established, and children found their way there from all parts of the country. For the abuse of medical charity, he believed medical men alone were responsible. If they would demand even a very small fee for their services, many of the institutions could not survive a single day—a result which was a desirable one. By continuing to give service gratuitously to these institutions, the medical men were encouraging pauperism and not relieving poverty. The poor we always had with us, and every honorable medical man was willing to do all in his power to alleviate their physical sufferings; but as medical men we should not continue to do those things which would make us all poor. Although it might not be possible to remove all the abuses, we might, perhaps, correct the medical.

Dr. H. G. Piffard raised the questions, What *should* we do to correct the present abuse of medical charity; and what *could* we do to bring about the desired result? To the co-operative plan suggested by Dr. Sturgis he objected, on the ground that it would give rise to institutions among men who were not indisposed to receive small fees, and would take business away from those who would be glad to render service for small fees, and the result would be, that the class of physicians just above must starve, or enter directly into the same competition. In other words, the greater portion of the younger physicians who had no capital to live upon, would be obliged to have their own private dispensaries.

The County Medical Societies possessed no power to prevent the formation of dispensaries. According to the general law of 1848, any five citizens could organize a charitable institution.

He also thought that by exacting any fee for service or medicine, the dispensaries violated their charter. The tendency, also, of the small-fee system, was to invite patients to go to these institutions, who should go to physicians who were willing to prescribe for a small compensation. If any reform came, it must be by the united action of the medical profession. The suggestion made by Dr. Bates, that dispensary physicians should be paid for their services, was a desirable one, perhaps, but he thought the trustees of dispensaries would not consider the proposition for a moment, when they knew there were hundreds of physicians who were clamoring for the positions, and were willing to work for nothing. Not until every member of the profession would unite in saying that he would not serve without pay, could the rendering of gratuitous services be prevented. He favored the adoption of some system of inspection of applicants as recommended by Dr. Agnew. He also believed that the State should provide for its paupers as it provided for its criminals, and thought that if the dispensaries were under the management of the State, they would be productive of better results than at present were obtained. Dr. Piffard raised the question whether those physicians who held positions in dispensaries were not violating the code of medical ethics by advertising that they would prescribe for the poor gratuitously at stated times.

Many of the positions in the dispensaries were held by members of the profession in good standing who were *not* members of the County Medical Society. If any action was taken by the Society, it must reach its members. If such action affected positions in dispensaries, the society would be injuring its own members for the benefit of those who were regular members of the profession, yet *not* members of the County Medical Society. When all members in good standing in the profession were members of the County Medical Society, some action might be taken by which the entire profession could be governed; as it was, but little could be done. With reference to the New York Hospital Dispensary, the managers knew that it was detrimental to the profession. It was pretty well known that it was concocted to injure the profession, and yet there were men in the profession who assisted the managers in carrying their scheme into operation.

Mr. Humber, a member of the Board of Trustees of Demilt Dispensary, remarked that what had been said contained truth upon all sides. For his own part he did not believe he was fulfilling his trust in making a charge, however small, to poor people, although his dispensary had adopted the plan. He believed when it was found that some money could be made by charging *ten* cents, consciences would become seared, there would be a yielding to the temptation, and the charge would be gradually increased. He believed that they were violating their charters by introducing the small-fee system, and certainly he was violating his conscience. The ten-cent plan had proved one thing, namely, that it would reduce the attendance of patients. To the mere fact of reducing the number of prescriptions he did not object, but that the plan diminished the attendance of the undoubtedly poor very greatly, must be conceded, else the institutions had been a lie from the commencement. He had made it a personal matter to see that no person went out of Demilt Dispensary without medicine who was not able to pay, and yet the easy application of the penalty had greatly reduced the number in atten-

dance of the *actual* poor, and it would soon be found that merely a provident dispensary remained.

DR. WILLARD PARKER thought the bottom of the subject had not been touched by anything which had been said. He hoped to be able to participate in the discussion on a future occasion.

DR. ZINZLER suggested a legal enactment making it a misdemeanor to obtain medical charity under false pretences.

DR. STURGIS thought that the really needy poor represented only a small proportion of those who visited dispensaries, and doubted if very many real poor patients were turned away by the adoption of the plan of paying ten cents. The object of the plan was to check the sturdy beggar and drunken vagrant from receiving the same benefit as the working widow obtained. It would reduce the number of patients, but that could not be avoided. He also stated that the question had been studied, and it had been decided that the charter was not violated by adopting the plan. He thought that *three* dispensaries could meet the wants of all the needy sick poor in the city.

DR. BEVERLEY ROBINSON remarked that there were at one time some regulations governing the admission of patients to the New York Hospital Dispensary, which were considered objectionable, but that a committee was appointed which waited upon the governors, and, so far as he was aware, they expressed a wish to eradicate the objectionable features, and it was now understood that the visiting physician should endeavor to determine whether or not the patients were deserving of charity. Many patients were treated there who paid nothing whatsoever. He thought it was not the intention that patients were to be accepted upon the payment of the one dollar when their means were such as would enable them to secure medical aid elsewhere.

DR. PIFFARD remarked that he based his statement upon what had been told him by gentlemen who were familiar with the present regulations of the New York Hospital Dispensary.

DR. STURGIS remarked that he had based his statement upon what had been told him by gentlemen holding positions in that dispensary.

The Society then adjourned to meet April 21, 1879, when discussion of the same subject was continued.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from May 18 to May 24, 1879.*

SHANNON, W. C., 1st Lieut. and Asst. Surgeon, Fort Clark, Texas. Granted leave of absence for one month, with permission to leave the Dept., to take effect when relieved from duty with 10th Infy., now *en route* to Dept. of the East. S. O. 101, Dept. of Texas, May 14, 1879.

KINSMAN, J. H., Capt. and Asst. Surgeon. Granted leave of absence from March 21, 1879, to September 21, 1879. His resignation, accepted by the President, to take effect Sept. 21, 1879. S. O. 117, A. G. O., May 17, 1879.

ERRATA.—Dr. John R. Hobbie writes, that in correcting his proof he overlooked the word "*inflammation*," 14th line from top of 2d col., p. 404, vol. xv., and that it should read "*deformities*."

# Medical Items and News.

CONTAGIOUS DISEASES -- WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending May 24, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| May 17, 1879. | 0 | 11 | 159 | 0 | 26 | 31 | 1 | 0 |
| May 24, 1879. | 0 | 4 | 111 | 3 | 39 | 26 | 2 | 0 |

MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.—Prof. John T. Darby has resigned the Chair of Surgery, and has been made emeritus professor.

Prof. J. Williston Wright has been elected to fill the vacancy caused by the resignation of Prof. Darby.

Prof. Wm. M. Polk, formerly Professor of Therapeutics, Materia Medica, and Clinical Medicine in the Bellevue Hospital Medical College, has, to fill the vacancy caused by the transference of Prof. Wright to the Chair of Surgery, been elected Professor of Obstetrics and Diseases of Women and Children.

CHICAGO MEDICAL COLLEGE.—Prof. E. W. Jenks, of Detroit, has been elected to the Chair of Gynecology, made vacant by the resignation of Prof. Wm. H. Byford.

THE NEW YORK ACADEMY OF MEDICINE.—At a stated meeting of the New York Academy of Medicine, held April 17, 1879, the following preamble and resolutions were offered by Dr. S. S. Purple, seconded by Dr. Austin Flint, and passed by the Academy, viz.:

*Whereas*, Abram Du Bois, M.D., of this city, a most worthy and generous benefactor of the medical profession, has given to this Academy the sum of five thousand dollars for the purpose of enlarging and improving the present building, therefore it is unanimously—

*Resolved*, That the Fellows of the New York Academy of Medicine recognize in this generous gift, again the noble qualities of head and heart which have, on more occasions than the present, moved the generosity and benevolence of the donor.

*Resolved*, That this Academy accepts with thanks this generous gift, and hereby declares its desire, and at this stated meeting orders, that Abram Du Bois, M.D., of the city of New York, be, and hereby is, declared a Benefactor of this Academy, and that his name be enrolled on its list as such for all future time.

*Resolved*, That this Academy, in its earnest desire to truly recognize in a proper manner, the magnanimity of the donor, hereby declares Abram Du Bois, M.D., an Honorary Fellow of the New York Academy of Medicine.

*Resolved*, That a copy of the foregoing preamble and resolutions be suitably engrossed and authenticated by the proper officers of this Academy, and forwarded to our most worthy benefactor.

*Resolved*, That these resolutions be published in the New York MEDICAL RECORD and the New York *Medical Journal*.

[Signed] FORDYCE BARKER, M.D., LL.D., *President*.

H. T. HANKS, M.D., *Recording Secretary*.

WOMAN'S MEDICAL COLLEGE OF THE NEW YORK INFIRMARY.—The tenth annual commencement exercises of the Woman's Medical College of the New York Infirmary were held in the Union League Theatre, Thursday evening, May 22, 1879. The exercises were interspersed with music. The Hippocratic oath was administered to the graduating class by Dr. Emily Blackwell. The degree of Doctor in Medicine was conferred upon *ten* graduates by President Samuel Willets. The valedictory address was delivered by Miss Helen Maria De Witt, of New York, and reflected credit upon its author. The charge to the graduating class was delivered by Dr. Emily Blackwell, and was followed by an address by Mr. Aaron M. Powell, formerly editor of the *Anti-Slavery Standard*.

VETERINARY DEPARTMENT OF THE UNIVERSITY OF PENNSYLVANIA.—The Philadelphia Society for the Prevention of Cruelty to Animals has issued an appeal to the citizens of Pennsylvania for the foundation of a veterinary department of the University of Pennsylvania. Mr. Coleman Sellers, in an address accompanying the circular, says that in Great Britain and Europe the skilful veterinary practitioner is respected for his skill, and is recognized as a man of science. The time has come when this nation will either have to import from abroad men skilled in veterinary science, or it must take immediate steps to put it into the power of its own citizens to acquire the information needed to improve the sanitary condition of their domestic animals. It is estimated that the cows and the land to support them represent a money value of $1,300,000,000. These animals yield 350,000,000 pounds per annum of cheese; 1,500,000,000 pounds of butter, which, converted into money, stands at $350,000,000 per annum, only one-fifth less than the corn crop of the land. We are said to export $13,000,000 worth of butter each year, and $14,000,000 worth of cheese, while the ocean freights on these exports cost $1,000,000, and the railroad freights, $5,000,000 per annum.

BELLEVUE HOSPITAL MEDICAL COLLEGE.—Dr. Joseph W. Howe, formerly Professor of Clinical Surgery in the Medical Department of the University of the city of New York, has been elected Clinical Professor of Surgery in this institution. Dr. A. A. Smith has been appointed lecturer on Therapeutics, Materia Medica, and Clinical Medicine, to fill the vacancy caused by the resignation of Prof. Wm. M. Polk.

NEW YORK HOSPITAL AND DR. GURDON BUCK.—The New York Hospital has received by six of his friends a portrait of Dr. Gurdon Buck, whose term of service in that institution extended through forty years.

COLLEGE OF PHYSICIANS AND SURGEONS.—Dr. Henry B. Sands has resigned the "Chair of Anatomy," and Dr. Thomas T. Sabine has been elected his successor. Dr. Sands has been elected Adjunct Professor to the Chair of Surgery.

DR. CHARLES H. GIBERSON—MINUTE AND RESOLUTIONS.—At a special meeting of the medical and surgical staff of the Brooklyn City Hospital, held April 23, 1879, the following minute and resolutions were adopted:

Charles H. Giberson, M.D. died at his residence, 98 Remsen Street, Brooklyn, on Saturday, April 19, 1879, of acute idiopathic peritonitis, after a very brief illness of five days, in the forty-first year of his age. He was born in Bath, Carleton Co., New Brunswick, where he received the rudiments of his education. He began the study of medicine at Fredericton, New Brunswick, subsequently pursued it at the Medical University of Vermont, and at the College of Physicians and Surgeons, New York, and was graduated with high honors at the former institution. He entered the Naval Service of the United States in October, 1861, as assistant surgeon, was ordered to the West Gulf Blockading Squadron, under the command of Admiral Farragut, and was attached to the Mississippi when she was burned before Port Hudson. In June, 1864, he was ordered to the marine rendezvous at New York, and was promoted to be passed assistant surgeon in 1865. In 1866 he was attached to the Susquehanna, flagship of the Brazilian Squadron, and was afterward ordered to the Peoria, belonging to the North Atlantic Squadron. He was on duty at New York Navy Yard in 1868, until Nov. 9th, when he resigned his commission in the navy and began the practice of medicine in Brooklyn. He took a deep interest in the advancement of medical science, was an active member of the Kings County Medical Society, and was largely instrumental in the establishment of its Pathological Section. He was also a member of the Medico-Historical Society and of the Physicians' Mutual Aid Association.

In 1877 he was appointed attending surgeon to the Brooklyn City Hospital, and held that position at the time of his death.

Dr. Giberson took an active interest in the patients who were under his care in the hospital, and brought to their treatment the same cheerful manner, the same deep interest, the same skilful insight, the same untiring and sympathetic devotion that he exercised toward those outside of the hospital, and was rewarded by like success both in the results of treatment and in the warm attachment that his patients felt for him.

In the death of our late associate, Dr. Charles H. Giberson, the medical and surgical staff of the hospital feel that they have lost the support and counsel of a skilful mind and conscientious associate in the wards of the hospital, and one who was devoted to the best interests of the hospital in all its departments.

*Resolved*, That they tender to the family of the deceased their sincere and deep sympathy in their sorrow.

*Resolved*, That a copy of this minute and resolutions be sent to the family of Dr. Giberson, and to the MEDICAL RECORD for publication.

S. FLEET SPEIR, M.D., *Secretary*.

CORRESPONDENCE OF SIR HENRY THOMPSON.—It is due to Dr. Van Buren and our readers to say that the letter from Sir Henry Thompson, which appeared in our columns last week, was prepared by him for publication, and was accompanied by an explanatory note from Dr. Van Buren, which, to our regret, was mislaid.

ERGOTINE IN OPHTHALMIA.—According to Dr. Planat, of Nice, ergotine makes an excellent and painless topical application in ophthalmia. He employs it dissolved in rose-water or glycerine, in the proportion of 15–22 grains to ʒ v. Eight to ten drops of the solution are instilled into the eye every two hours. When there is chemosis, or when the inflammation of the eyelids is violent, a piece of linen soaked in the solution may be left over the eye for a few hours. According to Dr. Planat, even the most violent cases of blepharo-conjunctivitis can usually be brought under control in two or three days by this treatment. In keratitis ergotine is less active than in the more superficial affections. In iritis it rapidly moderates the acute symptoms, and prevents the extension of the inflammation to the internal membranes of the eye.—*Le Lyon Médical*.

# Original Lectures.

## ON EPILEPSY.

A CLINICAL LECTURE DELIVERED AT CHARITY HOSPITAL.

BY A. McLANE HAMILTON, M.D.,

VISITING PHYSICIAN TO THE HOSPITAL FOR EPILEPTICS AND PARALYTICS.

### LECTURE III.

(Reported for THE MEDICAL RECORD.)

GENTLEMEN:—The physical evidences of this very common disease presented by the patients before and after the attacks are few, and consequently the large number of cases brought before you to-day exhibit a much smaller number of interesting clinical features than those patients who were presented at my previous lectures, and their appearance has only a valuable statistical interest. Epilepsy, as we know, is a malady which, in all cases, implies a recurring loss of consciousness, with more or less convulsive movement as a feature of the attack. The special feature of the disease is this abolition of consciousness, and though the muscular movements may be so slight as to be scarcely appreciable, there is invariably, in true epilepsy, a suspension of the mental powers. It is well that you should remember this in cases which have a medico-legal bearing, for I do not believe that any act of violence which has been done while the individual is said to be epileptic or suffering from an attack of epileptic mania, can be excused unless there is at some time absolute unconsciousness or an epileptic derangement of the intellect. I should be loth, even in those cases, to pronounce the person irresponsible, unless the loss of consciousness had *preceded* the commission of the act of violence.

The loss of consciousness may be sometimes so transitory and irregular as to almost defy detection. Jackson, in his admirable Harveian lectures, calls attention to a form of the attack which he calls the *dreamy* stage, in which there is dual consciousness, or the phantom recollection of some past event or state, such as occurs when the individual unconsciously realizes that he has been in exactly the same state or position at a previous period. This I give to you as a suggestion of how fugacious may be the mental disturbance, and how important it is for you to be on the alert in recognizing these states which, in many instances, are the initial stages of the grave disease.

Now I wish to say a few words with reference to the use of the term epilepsy, for I am disinclined to believe that genuine epilepsy is as common as it is universally supposed to be; therefore to-day I will speak of both an *epileptoid* condition, which is purely symptomatic of various organic diseases of the brain, and *epilepsy proper* as indicative of an attack characterized by a classical train of symptoms which usually present the same mode of appearance in a great number of cases. It is of the utmost importance to make an intelligent distinction of this kind between symptomatic epilepsy, and epilepsy for instance arising in youth and pursuing a tolerably even course for a number of years. Of late the term has been employed by Jackson, Charcot, and many others to express many forms of motor convulsion; Jackson even holding that loss of consciousness is not an absolutely necessary feature of the attack.

Epilepsy proper, it has been found, begins in a great majority of cases before the twentieth year in life, and in a variety of obscure ways. Many of the varieties of infantile convulsions which have formerly been roughly grouped under the head of eclampsia, in reality constitute the commencement of true epilepsy. Such convulsions may be lacking in certain features which go to make up a full attack of the developed disease, but they should always be looked upon with apprehension. In these attacks occurring in infancy, there may sometimes be but slight or momentary loss of consciousness, while the convulsive movements preponderate.

In other cases the condition may resemble *petit mal*, the attacks eventually becoming more pronounced and violent as they recur again and again. The child runs to its mother with a vague fear of some impending trouble, or stops suddenly in her play, her face becoming pale. These and other expressions are often the first indications of the disease. In these cases, intestinal irritation from worms, irritation from dentition, and various troubles of that kind are supposed to be the cause of the attack; but the convulsions have a deeper significance, and, though all exciting causes are removed, they recur from time to time to the discouragement of the physician and the parents. Several forms of epilepsy have been mentioned in the text-books, but for convenience we will only speak of the light attacks, or *petit mal*, and the severe attacks, or *haut mal*. These varieties may coexist, or they may occur independently. Of the twenty-odd patients brought before you, it will be found that about ten per cent. suffer from both forms, while in the remaining cases the severe form is the only one complained of. In fact, there may be a variety of motor expressions, some of which are but subjective; for instance, bearing in mind the fact that there may be a spasm of the muscular fibre of internal organs, as well as of the more gross masses visible to the spectator, it is reasonable to look for visceral and cardiac spasms, and the sensations described by the patient as forms of force expended internally.

It has been my experience in private practice, that pronounced epilepsy is much more common than *well-recognized petit mal*, although I have reason to think *petit mal* is by some supposed to be more common, although it cannot be denied that according to modern psycho-pathology there are numerous curious transitory mental states which are conceded to be epileptoid. An attack of *petit mal* may take a variety of forms. It may simply consist of a momentary loss of consciousness and some spasmodic movement of the arms, or, perhaps, only a grimace in which the eyes may be rolled upward. In one case, at present under treatment, the *petit mal* is associated with nervous cough which usually precedes the attack. In other cases the patient may be seized as he is walking across the floor, remain motionless for a second, and then go on as if nothing had happened. So, too, a species of *mental epilepsy* is very common, expressed by what might be properly called a spasmodic or discharging condition of the psychic centres, and as a consequence there are a variety of curious mental processes, attended, perhaps, by very slight muscular action.

It has been said that loss of knowledge of the attack when it has occurred, is one of the features of this disease, but this is not always true; for even if there be nothing to remind the individual that he has had an attack, such as injury from a fall, or destruction of articles he may be holding at the time of seizure, he is often cognizant of the attack, even though he may

not be so reminded by those in whose company he has been. This is especially the case if there has been an aura. In the more pronounced form of the trouble, I have, therefore, been often made to feel that the patients are by no means ignorant of the occurrence of the fit. Now in regard to the grave attack, we may divide the convulsive seizure into four stages. These stages are not always well developed, either in a single paroxysm or in every individual.

The first stage is that of preparation, and it is in this that the warning or *aura* is felt, if it be present; but it is not, however, invariably complained of. The most common auræ are those of a sensory character, and it will be found that a peculiar sensation starting from the epigastrium and travelling upward to the head, or from the distal end of one of the upper extremities in the same direction, will sometimes warn the patient of the approach of the convulsion; and of these four patients who have auræ, in three it proceeds from the epigastrium. Sometimes the aura is of a vascular character, the patient's fingers becoming swollen and suffused with blood. In other cases the first intimation of an impending fit is the perception of some odor, which may be either offensive or agreeable. For example, some of these patients complain that they smell the odor of smoke before the occurrence of a convulsion; others are annoyed by a disgusting odor of decaying flesh, while the odor of flowers or spices is alluded to; and in one patient of whom I knew, the attack is preceded by the perception of the odor of peppermint. Jackson speaks of a patient who perceived a metallic taste as the precursor of the paroxysm.

With regard to the succeeding stage, that of the actual development of the fit, we may recognize at first the symptoms of anæmia of the brain, and next those of cerebral congestion.

Bearing this knowledge in mind you will be enabled to diagnosticate the epileptic condition much more surely than by trying to remember the somewhat confusing list of symptoms published in the text-books. Either after an aura, or without any warning whatever, the individual falls to the ground and becomes convulsed by a tonic spasm of the muscles so that his body is either arched or bent to one side.

These phenomena are accompanied by great pallor, dilatation of the pupils, and almost complete arrest of respiration. After a few seconds the convulsion becomes clonic, the face becomes red and swollen, the pulse labored and hard, and the patient may void his urine and fæces as a result of spasm of the bladder and rectum. During the clonic convulsion the respiration becomes exceedingly tumultuous and labored, froth oozes from the corners of the mouth, and if the patient has bitten his tongue the froth may be tinged with blood. This is a grave symptom, and has always a bad significance.

The commencement of spasmodic action is, as Jackson has shown, in the smallest muscles, usually of an extremity, and finally the convulsive action becomes extended. If the attack be light and the discharging lesion inconsiderable, but a small number of muscles will be involved; but if the cortical discharge be great, the paroxysm will be extensive.

After a period varying from thirty seconds to several minutes, the patient makes some sign of returning consciousness. During the continuation of these three stages he may twist his arms from side to side in a semi-voluntary manner and mutter unintelligibly, just as a person usually does who is recovering from the effects of ether. He may now, after lying for a variable length of time, gradually recover himself, arise and go about his duties; but more commonly he lapses into a profound sleep amounting to stupor, which constitutes the fourth stage.

In the majority of cases the first stage is ushered in by a noise made by the patient. This noise may be either a shriek, the result of a purely mental process, or a smothered groan, which results from a forcible compression of the thorax and expulsion of air through the vocal cords. The latter sound is more common than the cry.

Of late, considerable attention has been paid to the form of convulsions occurring in an epileptic seizure, and Hughlings Jackson has announced the opinion that these should be divided into two forms: the tetanic, in which there is a preponderance of tonic convulsions, and tendency perhaps to opisthotonos and bilateral flexion of the forearms; and the epileptic or clonic convulsions, which consist in irregular movements. The former he supposes to be associated with disease at the medulla or posterior part of the brain, while the clonic convulsions are more symptomatic of anterior cortical disturbance. This, for some reasons, is a valuable distinction; but it seems probable, and I think a great majority of observers agree, that whether the primary nervous discharge originates in the cortex or at some other point, the medulla oblongata is the true seat of the active pathological change.

Now, with regard to the epileptoid attacks, and among these we may include the so-called syphilitic epilepsies, we usually find a decided irregularity in the expression of symptoms. In the epilepsy which is the result of syphilitic disease, there is undoubtedly a condition of meningeal disturbance of varying degree which exists between the attacks, and this patient who suffers from such a form of disease presents not only the initial expression of mental trouble, but he is at times decidedly deranged. A peculiar sluggishness of ideas and a sort of hebetude is highly suggestive of the specific nature of the trouble, and speech is slow and constrained.

Of course, this is a confirmed case, and we need not always expect such decided manifestation of the condition between the convulsions.

In syphilitic epilepsy there is very commonly headache of severe variety, which precedes the attack, and at the time of the occurrence of the paroxysm it is especially severe; while in ordinary non-specific epilepsy, if headache is present, it is always the result of the seizure.

Diplopia, hemiopia, cranial nerve paralyses of various kinds, and attacks which seem to be expressed by much more violent convulsive movements upon one side of the body than the other, are most decided evidences of a syphilitic fit. The so-called "partial epilepsy" of Jackson and Bourneville is of this variety.

You will meet with cases of paralysis with which there is associated epilepsy, the paroxysm beginning in the paralyzed limb, or others in which there is no clonic stage, but simply a tonic spasm of one side; but this form is quite rare, and there are only two cases of which I know—both reported by Bourneville.

Epileptoid convulsions as the result of cerebral tumors are very often confused with the uncomplicated disease. Though it is not uncommon to find convulsive attacks unassociated with loss of consciousness, there are cases in which the seizure presents many of the features exhibited by the true disease.

In such examples it is well to use the ophthalmoscope, for the existence of retinal changes are frequently found, while local paralyses, disturbances of locomotion, vertigo, headache, and vomiting will usually put one upon his guard as to the fact that

there is a brain tumor. In certain instances, epileptoid convulsions are symptomatic of cerebro-spinal sclerosis, even in its earliest stages when there are no other symptoms, and I have upon several occasions found attacks of this kind to be among the earliest symptoms of general paralysis of the insane.

It is hardly necessary to allude to symptomatic attacks occurring in the course of uræmic poisoning, for the error in diagnosis under these circumstances can only be made by one who sees the patient for the first time, or is entirely unfamiliar with his previous history.

Though the urine is sometimes tested in such suspected cases, and albumen is found, it is not well to be too positive in laying the blame upon the kidneys, for it has been found that a very common evidence of syphilitic epilepsy is the presence of albumen in the urine; but there will be discovered at the same time a decided deposit of phosphates. So this test alone is not sufficient. The appearance of the skin, the existence of œdema, and the symptoms found by ophthalmoscopic examination, such as retinal blanching or extravasations, will render substantial aid in such diagnosis.

The occurrence of the pronounced epileptic attack may be nocturnal, diurnal, and very often matutinal—or early in the morning upon awakening. As far as my experience goes, the nocturnal attacks are the most common. Of these patients before you, probably two-thirds have their attacks at night, although in private practice, or when patients are not closely observed, the occurrence of the night attack is frequently undetected. The staining of the bed-clothes either by bloody froth from the mouth, or by involuntary discharges from the bowels or bladder, or again, the bitten tongue, are often the only evidences which point to the occurrence of the night seizure.

Biting of the tongue seems to be much more common in the nocturnal variety of epilepsy than in any other, and, as has already been said, is a symptom of a very severe attack.

Besides the pronounced forms of epilepsy that I have detailed, there are several others of an irregular type which are rarely seen.

This woman upon my left presents, as the first indication of an attack, a curious disposition to run through the ward, entirely unmindful of what harm she does or who may be present, and manages to escape bodily injury in a way which seems almost miraculous. After a period of about two minutes she has an aborted attack.

In other instances the patient has run through streets for several blocks, or done a variety of curious things, apparently in an automatic manner. For example, Mesnet has reported the case of a soldier who, when given a pouch of tobacco and paper, automatically made cigarettes until the contents of the pouch were exhausted, and when started off at a brisk pace, marched to the end of the room, and, finding that he could go no farther, stood and marked time until stopped by his attendant.

Hughlings-Jackson relates a case of a gentleman who persisted in undressing himself upon a public wharf, and was only restrained with difficulty by his servants, and a few moments afterward knew nothing of what he had done. These and many other curious things familiar to nearly every one, are too often epileptic aborted paroxysms, and I am of the opinion that the "queer" actions of persons supposed to be suffering from incipient insanity, are, after all, epileptic manifestations, and this is strongly presumable if there be no further manifestations of insanity.

These cases are interesting, because they illustrate the fact that there may be utter loss of consciousness, but not necessarily a derangement of motor power expressed in convulsions, and they have especial significance in their medico-legal bearing.

The appearance of the confirmed epileptic is well shown in most of the cases before you. Some of them bear plentiful crops of acne as a result of the bromides, and this is one of the evidences of saturation; but, if you will look attentively, you will observe a peculiar lustreless, fishy expression of the eyes, which is quite striking. There is also a puffiness of the skin, which is of a dull muddy color. The lips have lost that clear red hue which is found in health, and they are swollen, and the lower lip is everted slightly. In some cases there is a low grade of conjunctivitis, and upon turning up the lids, you will find that the inner surface is granular. The lashes have fallen out in some cases, or are gummed together, while there is a disposition to lachrymation. In most of them there is an expression of sadness almost amounting to melancholia, while the faces of others bear an expression of vacuity.

As a consequence of epilepsy, there may be developed several interesting mental states, some of which are illustrated in the patients exhibited to you to-day.

The most familiar and constant state of mind-degeneration is imbecility, although this mental involvement is very often improperly recognized. On the other hand, it is confounded with idiocy, in which an epileptic condition is a symptom of the congenital condition, and not the result of an established disease. When we find imbecility or mental impairment after the period of childhood, it is usually an outgrowth of frequent attacks of *petit mal*.

An important fact bearing upon prognosis is, that very little mental impairment follows violent attacks occurring at infrequent intervals, but that numerous transitory losses of consciousness have a decidedly bad significance. Next in importance among the mental disturbances stands mania, and this may be either a symptomatic or a predisposing affection.

As to the etiology of epilepsy, it will be found that, above all other influences combined, hereditary tendency enters most largely into the causation of the disease; while, as exciting causes, disorders of nutrition, alcoholism, nervous excitement, uterine disease, and fright, play important *rôles*.

With reference to masturbation as a *cause* of epilepsy, I am not disposed to attach much importance to its etiological bearing. It is very common among epileptics, especially the class of patients found in hospitals and dispensaries, and is associated with other vicious tendencies which in confirmed cases render the chronic epileptic a very serious burden to society.

Homicidal tendency, stealing, destructiveness, and morbid impulses of various kinds are not infrequently found in patients who, before the commencement of the disease, had a useful career before them. On "the Island" numerous attempts have been made by epileptics to set fire to the buildings, and fights and brawls are of every-day occurrence.

With reference to the treatment of epilepsy, I have not much to say, for I take it for granted that this branch of neural therapeutics is familiar to you. I would, however, strongly advise you not to be too hasty in the selection of a remedy, for many have been recommended which have been proved to be utterly useless, and some have an undeserved reputation.

I would recommend, in the *first* place, a most careful observance of those hygienic rules which are of so much importance, and influence to such an extent

the progress of all the neuroses; and in the *second* place, would suggest the use of two or three remedies which seem to possess great virtue in this disease.

The bromides have received deserved popularity, and if used within proper limits and in combination, will sometimes cure cases of moderate duration, especially if the case is uncomplicated and is not the result of traumatism.

I am in favor of combining bromide of sodium with bromide of ammonium, equal parts of each, and of administering sixty grains of the combined salts together with thirty grains of hydrate of chloral daily. The doses should be divided so that the largest may be given a short time before the fit is likely to occur; that is, if any regularity in the occurrence of the convulsions can be distinguished. Of course, this quantity may be increased if occasion requires. In other cases, the bromides given in combination with bicarbonate of potash and some simple bitter tonic, as recommended by Brown-Séquard, will produce wonderful results. These remedies are especially serviceable in the nocturnal forms of the disease, and, in fact, are to be commended in the treatment of attacks of an irregular character.

I will caution you against giving the bromides with the mere idea of exhausting, as it were, or stamping out the disease. It is of the utmost importance to combine with them cod-liver oil or some other fat-making material which improves the nutrition of the nervous substance. It has been my good fortune in many instances, where the bromides have been given in excessive doses (even to the point of producing full bromism, and yet without producing any apparent effect upon the disease), not only to materially diminish the number of seizures by reducing the quantity of bromides administered—and giving cod-liver oil, cream, extract of malt, or linseed-oil—but to decidedly improve the patient's general health.

Should the cases, in which we have satisfied ourselves that there is no exciting cause to be removed, resist this plan of treatment, we may resort to the use of the actual cautery, or apply repeated blisters to the back of the neck. But in many cases even these remedies do but temporary good, and the result of our treatment must be discouraging.

From recent trials it would seem that curare is indicated in these obstinate cases, and a standard solution, acidulated with dilute hydrochloric acid, may be hypodermically injected every fifth day in doses of one-third of a grain until five or six doses are given. In the lighter forms of the disease the use of the fluid extract of ergot in drachm-doses, three times a day, alternated with tincture of belladonna in five-drop doses and gradually increased in quantity, afford very satisfactory results when the bromides are apparently inert.

Cannabis indica has also been recommended and successfully used by Sinkler, of Philadelphia.

If the disease has appeared in a patient over twenty years of age, especially when the characteristics of the disease are such as I have described when speaking of syphilis as a cause, we may use the combined iodide and bromide treatment, or better still the bichloride of mercury. One secret of success in the management of this form of the disease, and, in fact, nervous syphilis in general, is to push the administration of the iodides as far as we can safely go, and this must be done rapidly. Whatever you do in the treatment of this discouraging affection, be consistent and methodical. It is extremely injudicious to make changes and try new combinations when the patients are doing apparently well, or even some time when no change follows, or to relax your vigilance over the invalid's personal habits. For epilepsy is essentially a disease, as I believe, in which there is a habit, if it may be so called. In many cases, in fact in a large proportion of all, there is a regular recurrence of the fit; and every day gained after the time when the attack usually occurs is to the patient's advantage, and helps to break up the tendency to regularity.

# Original Communications.

## THE INTRAVENOUS INJECTION OF AMMONIA.

By GASPAR GRISWOLD, M.D.,

HOUSE-PHYSICIAN TO BELLEVUE HOSPITAL.

During the winter of 1877–'78, while serving as assistant in the physiological laboratory of Bellevue Medical College, I made a number of experiments upon dogs with reference to the action of intravenous injections of ammonia. For this purpose I used the ordinary aqua ammonia (containing ten per cent. of ammonia-gas), diluting it with an equal bulk of water. This solution, if dropped upon the tongue, is highly pungent and irritating, but does not vesicate, the stinging sensation caused by it passing away entirely in a few minutes. I chose for experiment dogs in whom the viscera had been exposed for purposes of vivisection, and who had become exhausted with loss of blood and the depression attending the entrance of cold air into their thoracic and abdominal cavities. I waited, in such a case, until the heart had almost ceased to beat, its rhythm being disturbed, and its inefficient contractions no longer deserving to be called pulsations. I then injected into a convenient vein half a drachm of ammonia solution. After a period varying with the distance of the vessel selected from the heart, and with the rapidity of the circulation in the particular case, a marked change was observable. The heart had a moment before been dark and congested, its right cavities engorged, and the contraction of its fibres weak and uncertain. Suddenly the systole acquired a new energy, which emptied the distended right ventricle into the lungs, and filled the aorta with fresh oxygenated blood; the heart itself became bright red again as the new supply flowed in through the coronary arteries. It is impossible to do justice to the striking picture presented by these phenomena as they rapidly succeed each other beneath the eye of the experimenter. The circulation was almost immediately re-established, and the animal, if anæsthesia were not too complete, moved and showed signs of life. In the course of fifteen or twenty experiments I never failed to obtain the result above described.

In my wards in Bellevue Hospital I have several times injected one drachm of ammonia solution into the veins of patients apparently moribund, and have always succeeded in stimulating them much more powerfully than I could do by other methods. The prompt and marked effect in some cases is almost startling to those who have been accustomed to see hypodermic injections of whiskey and ether, inhalations of nitrite of amyl, etc., employed to no purpose under similar circumstances.

On one occasion a man came in a great hurry, having been notified that his brother was dying of phthisis in one of my wards. Notwithstanding his

haste, the sick man was already moribund and unconscious when he arrived. Pitying his disappointment at being too late for a few last words, I injected a drachm of ammonia solution into my patient's cephalic vein. In five minutes the man who had appeared almost dead was sufficiently restored to speak, and half an hour elapsed before he again became unconscious. The effect of the stimulant was so marked that I had some difficulty at first in convincing the astonished visitor that his brother had not "taken a turn and was getting well again."

*Case.*—Man forty-five years of age, with cirrhosis of liver and ascites. Has been tapped three times, fluid reaccumulating rapidly; has grown weaker very fast during the past three weeks; now dying of asthenia; unconscious; pulse scarcely perceptible; surface cold and moist.

1st. Six half-drachm doses of whiskey administered hypodermically. No effect.

2d. Six half-drachm doses of ether administered hypodermically. No effect.

3d. Inhalation of ammonia. No effect.

4th. Inhalation of nitrite of amyl. Slight increase in force and rapidity of pulse. No sign of returning consciousness.

5th. One drachm of ammonia solution injected into a superficial vein of forearm. In twenty seconds increased action of heart. Pulse good at wrist. In three minutes patient answered incoherently something about being uncomfortable, and tried to turn on his side. Could be roused, and his attention attracted, for about fifteen minutes; then became unconscious again. Died half an hour later.

*Case.*—Moribund from phthisis. Unconscious; heart acting very feebly. Intravenous injection of ammonia caused the heart to act vigorously, and partially restored consciousness for about ten minutes.

Three cases, like the last, presenting no feature worthy of special description, but important as corroborative evidence.

The next case deserves more careful attention, being the first in which I have been able to observe the patient long enough to satisfy myself that no bad effects follow the injection of ammonia directly into the circulation.

Hester Mahar, aged forty-seven; Irish; single. Admitted to Bellevue Hospital, April 29th. On admission there was ascites, which had commenced a month before, and was probably due to cirrhosis of the liver. Right pleural cavity nearly full of fluid; heart displaced to the left. No evidence of cardiac or renal disease. Patient very weak, and compelled, from dyspnœa, to maintain a sitting posture. Abdomen tapped; seven quarts and eight ounces of clear serum withdrawn. Patient much relieved. Stimulants and nutritious diet ordered.

May 1st.—Patient very weak. Does not seem to suffer much from dyspnœa, though the right side is nearly full. Considered advisable to postpone thoracentesis until the patient is stronger.

May 3d.—Patient still very weak. Dyspnœa not marked.

May 4th.—Called by nurse to see patient. Found her breathing very little; weakness seeming to obscure the expression of dyspnœa. Almost unconscious. Cannot be made to notice anything, or swallow what is put to her lips. Fluids poured into her mouth run out again. Eyes vacant, pupils dilated; jaw fallen, tongue dry and brown.

Thoracentesis performed with the assistance of three members of the house-staff. Ninety ounces of clear serum drawn off. During the operation, which lasted about twenty minutes, fifteen or twenty half-drachm doses of whiskey were administered hypodermically. In spite of these efforts at stimulation, the pulse, which had before been weak, disappeared entirely at the wrist. The impulse of the heart could scarcely be felt over the præcordia, and the respirations were shallow and ineffectual, not seeming adequate to the inflation of the lung just relieved from the pressure of fluid. The condition of the patient was so unpromising that my colleagues of the house-staff, who had been assisting me, were of opinion that she was dying, and that further treatment was useless, and even absurd. Expressing themselves to this effect, they left me, giving up the case in their own minds, and taking no further interest in the matter. While I was obliged to admit that the case was hopeless, judged by ordinary standards, and beyond the reach of ordinary stimulants, I could not help feeling that heroic measures were specially indicated. The source of trouble—fluid compressing a lung and displacing the heart—had been removed; if the patient could be stimulated to breathe deeply, and profit by its disappearance, there seemed to be good reason to hope for her recovery. Selecting a prominent superficial vein in the radial region, I exposed it by an incision through the skin. I then injected slowly into it a drachm of ammonia solution, taking care that the point of the hypodermic needle was free in the lumen of the vessel. This done, I placed my hand over the patient's heart and waited. In fifteen seconds I felt a marked increase in the force of pulsation. In about two minutes there was a strong pulse of a hundred, which was plainly perceptible at the wrist. A minute later the patient sighed deeply; the color came back to her lips; her eyes moved and began to show signs of returning intelligence. On being urged, she swallowed without difficulty two ounces of strong egg-nog. After a few deep inspirations, she breathed more regularly and easily; her pulse was strong and tense, ranging between 100 and 110. Half an hour afterward she was perfectly conscious, and reported herself comfortable, though weak. Pulse 90, regular and strong. Respirations 26, easy and natural. Swallowed easily and willingly small quantities of egg-nog. During the afternoon and evening patient continued to improve. Pulse 80–90, and strong. Respiration 20–30, and easy. Patient passed a good night, sleeping most of the time. Was bright and refreshed in the morning.

May 7th.—Steady improvement since last note. Sat up for two hours to-day and ate a lamb-chop with relish.

May 17th.—Patient sits up nearly all day and is gaining strength.

N.B.—Improvement has been uninterrupted since the injection of ammonia. No depression has been observed following the stimulant action of that remedy, nor has there occurred an unpleasant symptom which could be attributed to it.

The cases described seem to satisfactorily establish:

1. That the intravenous injection of ammonia is a prompt and powerful means of stimulation, acting efficiently in cases where other measures are of no avail.

2. That no bad effects follow its employment.

While the importance of the above deductions is obvious as a matter of general therapeutic interest, they seem to have a special significance in connection with those operations whose object is the removal of mechanical obstructions to respiration—I mean thoracentesis, and more particularly laryngotomy and tracheotomy. Thoracentesis is not, perhaps, very

often an emergency; but laryngotomy and tracheotomy, done in cases of croup, œdema glottidis, etc., generally fail to save life, because performed too late—the patient being too much exhausted to breathe in the air for which a new entrance has been made. Artificial respiration, hypodermics of whiskey and ether, cold affusions, etc., are resorted to in vain in many instances—the machinery of life cannot be set in motion again, and the cases die for want of efficient stimulation. Now, would not the intravenous injection of ammonia, in connection with artificial respiration, save many of these patients? It being proved that the treatment is without danger and followed by no bad effects, this question should not long remain unanswered.

In conclusion, I would call attention to the fact that it is not easy to perform intravenous injection through the skin. The vein collapses under the necessary pressure, and the needle is apt either to stop short and not enter the vessel at all, or to transfix it and direct the injection into the cellular tissue beyond. The only safe method to pursue is to dissect down upon the vein and expose it; the needle may then be carefully introduced until the point is felt free in the interior of the vessel.

## A CASE OF SEPTICÆMIA FOLLOWING AN ABORTION.

By ISAAC OPPENHEIMER, M.D.,

NEW YORK CITY.

On Thursday morning, Oct. 3, 1878, I was called to attend Mrs. ———, æt. 26. She was at the end of the third month of pregnancy and had hitherto enjoyed the best of health. The day before she received a sudden shock by the jerking of a street-car over a stone on the track. She reached home feeling very well, but the next morning had severe pains and a sudden hemorrhage. When I reached her, the bleeding had greatly lessened, consequent upon the discharge of some thick pieces of flesh, as she described them, and which I took to be portions of the fœtus and membrane. These, unfortunately, as is only too often the case, were thrown in the closet. Upon examination I found the external os well dilated and passing through the internal, easily removed some pieces of fœtus and placenta already detached and ready for expulsion. Sweeping my finger over the fundus and not discovering anything, I removed some clots and gave a dose of Squibb's ergot, the uterus immediately contracting after removal of the débris. There was no more bleeding, and I left the patient in a comfortable condition, giving the usual directions as to rest and diet. She remained in bed until Monday, hemorrhage having entirely ceased and the uterus well contracted. She felt quite well at my morning visit, except that her appetite was not as good as on the preceding day, but still she was very eager to leave her bed. During the afternoon I was sent for and informed that Mrs. ——— had a violent chill, lasting about fifteen minutes, at eleven o'clock in the forenoon. Her temperature under the tongue was 105° F., pulse 120; face anxious, with a dark flush on cheeks; tongue furred, and great thirst. No pain on pressure over uterus, and no vaginal discharge; external os open to index finger, internal os contracted. Prescribed 20 grains quinine with 10 grains Dover's powder, to be taken in two doses, one hour apart.

Called about nine P.M., condition unchanged, except patient was partially cinchonized. Next morning her temperature was 99½° F., pulse 100, perspiring freely, very pale countenance, tongue coated white, lips parched, and no appetite. At this visit I injected per vagina about a quart of sol. acid carbol. (℥j.–Oj.). In this condition she remained all day, perspiring excessively and feeling very weak, but frequently asserting that she was all right. I was under the impression that it was a malarial attack, though there was no preceding history of that disease. About five o'clock on Wednesday morning she had another violent chill, although a full dose of quinine had been taken the previous evening. When I saw her, her temperature was 103° F., pulse 110, and she presented the same symptoms that followed the first chill. Rejecting the theory of malaria, I determined to examine the uterus, as the symptoms might point toward a septic origin. Steadying the uterus with one hand, I introduced the index finger of the other through the external os to the internal, which I found quite contracted. By patient and gentle pressure it gradually admitted my finger, and, dilating it well, passed on to the fundus. Examining the fundus carefully, I felt several pieces of placenta closely adherent to the uterine wall. By careful scraping with the finger-nail, I removed singly three pieces measuring altogether about one to one and a half inches in length.

The wall of the uterus was lined with a dark, foul-smelling fluid. I administered gr. ¼ morphia and left the patient. The entire procedure lasted fully half an hour. The pieces removed were black at the edges, of foul odor, and, examined microscopically, were seen to be pieces of placenta in a granular condition. Upon visiting patient in the afternoon, I learned that she had a severe chill half an hour after the operation, but not as violent as the former ones. She was perspiring freely, skin clammy, and temperature 99° F., pulse 95. Pulse and temperature never rose afterward, and in twenty-four hours became normal without the aid of any medicine. She was very weak, however, and it was ten days before she could leave her bed, so depressing were the chills and excessive perspiration. This case presents some very interesting points. It is exceptional that so small a mass of placenta will give rise to septic trouble, and especially where there is no inflammatory or otherwise abnormal condition of the uterine walls. Usually in such cases, hemorrhage, often persistent for months, remains as the only effect. Among the poor, who are often unattended by a physician, this is only too common a result, and the sufferer is soon reduced, by the constant drain on her vitality, to an anæmic and exhausted condition, until compelled to seek medical advice.

On examining, when first called to my patient, the fragments were so small as to escape observation, although a careful search was made. This was due, probably, to the large clots in the uterus. Had the pieces of placenta been removed at once, all these dangerous symptoms would have been avoided.

Where a mass has been expelled before the physician arrives, and thrown away, he should examine the uterus from cervix to fundus, despite the assertions of the patient or attendant that all has passed away, for they will readily exaggerate as to the size of the expelled portion, so as to escape an examination. Sometimes clots will have been mistaken by them for the ovum which, perhaps, is still intact in the uterus. About three months before this I was called to a lady, who, in the third month of pregnancy, was seized with a sudden flooding, while receiving her guests. When I saw her, the maid in attendance informed me that she had thrown some large lumps, which had been expelled, into the closet. As the hemorrhage had ceased

upon my arrival, I supposed these to have been portions of the ovum, but on passing my finger through the dilated internal os, felt, to my astonishment, the sac entire and seemingly completely adherent to the fundus, for I did not stop to examine more minutely. No pains followed, no hemorrhage was induced, though she aborted some eight hours after. An almost similar case occurred in the practice of a neighbor of mine, who, feeling the ovum entire after a severe hemorrhage and where everything had been removed prior to his arrival, counselled complete rest. Contrary to his advice, the patient rose to go to stool a few hours afterward, and aborted almost immediately.

Another point of interest refers to the early appearance of the septic symptoms. At a meeting of the Academy of Medicine, held in February, 1876, during a discussion following a paper on "Unusual Uterine Hemorrhage," a number of well-known physicians stated that they never entered the uterus to remove the placenta after the expulsion of the fœtus, but tamponed the vagina to control hemorrhage and assist dilatation of the os, and thus awaited its natural expulsion. If the placenta was not found on removing the tampon within twenty-four hours, the same procedure was renewed once or twice until expelled, and if not then, manual or instrumental removal was attempted. All danger of septic poisoning seems to have been ignored, for one speaker further stated that he allowed the placenta to remain six or eight days, if necessary, confining treatment to the use of the tampon. In the present case, septic symptoms appeared on the fifth day, and in a few days more the patient might have been beyond mortal help. The objections to removal of the placenta directly after expulsion of the fœtus seemed to be: 1st. Non-sufficient dilatation of os internum. 2d. Inability to introduce the finger into the uterus, if not low enough in the vagina. 3d. Danger of incomplete removal of placenta. 4th. Injury to uterine wall.

As to the first objection, if the fœtus has already been able to escape and hemorrhage consequently taken place, the os must certainly be sufficiently dilated to admit of a finger partially entering and dilatable enough to admit of its complete entrance with a little gentle and persevering pressure, no matter how well the uterus may have contracted.

Steadying and gently depressing the uterus with one hand on the abdomen, we can in most cases reach the fundus by introducing the finger only in the vagina. If unsuccessful, we can partially pass the hand, or, if necessary, introduce it entirely in the vagina. Should the pain be too severe, chloroform can be administered.

Steadying the uterus as described, the index finger is passed to the fundus and then the placenta scraped off. It is not often removed entire, but usually in two large and several smaller fragments. As soon as a piece is detached it is allowed to fall between the base of the finger and the uterine wall, and kept there while another piece is being separated. When all of the placenta is detached, the pieces are pressed against the wall of the uterus and so removed. It may thus be sometimes removed without once withdrawing the finger from the uterus, though usually two attempts may have to be made. After all is finished, a last examination is made, to be certain that no fragments have been left behind. The finger-nail makes a most admirable instrument, and causes no injury to the mucous membrane. It does not dig into, but only scrapes from its surface. Of course the hands are well cleansed and washed in a solution of carbolic acid before the operation. Thus the placenta can be removed with entire safety. I have never seen any bad results follow, even when compelled to administer chloroform to introduce the hand into the vagina, nor discovered any by diligent inquiries as to the experience of others who have employed this treatment. Let it be remembered that our object is to prevent the occurrence of hemorrhage and septicæmia—either sufficient to destroy our patient, and if we can but accomplish this, we should not hesitate because the procedure may be painful or partake too much of the nature of an operation, especially since experience teaches that no bad results follow. How many women would have been spared months of hemorrhage and its disastrous consequences, if but, at the time of abortion, the uterus had been properly emptied?

It is remarkable how rapidly the patient's strength gave way. Eager to leave her bed before the first chill occurred, and although the disease was happily cut short, as it were, I do not believe that she could long have withstood the high temperature and profuse perspiration, liable as she was to secondary disease in some internal organ. With removal of the decomposing placenta, all dangerous symptoms soon disappeared. This proves that the septicæmia depends on the successive absorptions of a virus, each individual poisoning producing a set of symptoms depending on the amount absorbed. The later absorptions necessarily react on a system already enfeebled by the former poisonings, and so death may result from their combined effort alone, or from the altered condition of the blood producing secondary organic trouble. If the blood is at the first overwhelmed with the poison, death may rapidly occur. But this is very rare. The virus seems to be in a measure cast off in the chill, fever and sweat, and with a second introduction, the same set of symptoms recur. The combined effect of these repeated absorptions rapidly overwhelm the entire system, producing that condition known as the typhoid and death. Or death may occur, as before stated, from secondary organic changes, though this is not necessary, as many cases present, post-mortem, no lesions except a dark and fluid condition of the blood.

If, therefore, septic symptoms should follow an abortion, where fragments of placenta have for some reason been allowed to remain, the uterus must be immediately explored and the cause removed, in the hope that sufficient amount of poison has not as yet been absorbed to kill the patient. No matter how desperate the case looks, the attempt should still be made, and the following case, occurring in the practice of Dr. Whitall of this city, shows from what seemingly hopeless a condition the patient may still recover. When the doctor first saw his patient, she lay already in a typhoid state; her temperature was 105° F., pulse 150, cheeks dusky; there was low, muttering delirium; altogether the case seemed hopeless and fast approaching dissolution. There was that odor perceptible in the room and about the bed that too plainly showed the presence of decomposing matter in the uterus. As a last resort, the uterus was explored, and a mass about the size of a large egg, consisting of placenta and clotted blood, was removed. It was decomposing and gave off a disagreeable odor. When the patient was seen on the next day, to use the doctor's words, "she looked like a different person." Pulse and temperature were reduced, her delirium had disappeared, and she soon completely recovered.

Syringing out the uterus with disinfectants only temporizes. It cannot remove what is firmly adherent, and though it may prevent further decomposition, if

used early enough, the patient is liable to the same danger upon stopping the injections, and should no further septic trouble occur, the presence of ever so small a piece of placenta renders the patient liable to hemorrhage when convalescent. Besides, uterine injections, following an early period of pregnancy, often cause unpleasant symptoms, and, to produce a good effect, must be frequently renewed. In the latter stages of septicæmia, as in the case quoted, they can be of but little avail. Metritis should be no objection to removing the placenta, for it is masked by the greater danger, septicæmia, and in fact can scarcely be diagnosed in this condition.

Thus, many cases, otherwise hopeless, may be saved by a rational treatment, based upon the old law of a removal of cause producing a removal of effect.

# Reports of Hospitals.

## BELLEVUE HOSPITAL.

### Notes of Practice and Peculiarities of Treatment.

#### Pneumo-hydrothorax—Question whether it was incident to phthisis or to empyema.

In the following case the question arose whether the pneumo-hydrothorax was incident to phthisis or to empyema. It was regarded as a question not easily settled if a case had not for some time been under observation.

A male patient, æt. 25, was admitted to the hospital December 7th. His family history was tolerably good, and was negative with reference to phthisis. He was suddenly seized with a chill, which was followed by pain in the side, dyspnœa, and symptoms which rendered it quite probable that he had pleurisy. After a time he began to expectorate muco-purulent matter.

Looking at the case from those symptoms, it could be fairly regarded one of pneumo-hydrothorax following empyema.

On the other hand, there was hoarseness, which had existed for some time independently of ordinary cold, and there was more or less expectoration of frothy white material with cough before he began to expectorate the muco-purulent matter. He then had a chill and pain, and it might be said that up to that time the case was one of simple phthisis.

There was no evidence of phthisical deposit at the apex of either lung. The patient was unable to lie upon his back or right side. The succussion sound had been obtained several times upon the left side, although at the time of this note it was absent. The case illustrated the fact that the succussion sound was occasionally temporarily absent in unmistakable pneumo-hydrothorax. There was absolute loss of vocal function on the left side of the chest, with flatness upon percussion, except over a very small space at the upper portion. The visiting physician was inclined to the opinion that the free incision was the best treatment for such cases.

#### Empyema—Aspiration—Free incision—Marked improvement in the general condition of the patient.

A male patient was suffering from simple empyema. He had been aspirated, but with each aspiration it was evident that the purulent character of the fluid was increasing. His general condition became very bad. Emaciation was rapid, and he had hectic. A free incision was made into the pleural cavity, and seventy ounces of pus were evacuated. The patient was almost instantly relieved of his dyspnœa and had been improving ever since the incision was made. Previous to the removal of the pus the heart was crowded far to the right, but it had returned to nearly its normal position. There was only slight cough with expectoration. A drainage tube had been used, although the visiting physician thought the cases did fully as well when treated simply by keeping the opening closed with a tent. The pleural cavity was washed out daily with carbolized water, one part of carbolic acid to two hundred of water. The daily discharge of pus was only three or four ounces, and in all respects the patient was improving.

#### Pneumonia—Indications for treatment.

Three cases of pneumonia were seen, which were interesting with reference to the age of the patients and the indications for treatment as presented by the visiting physician.

Case I.—*Single pneumonia occurring in a patient well advanced in years.—Recovery.*

A female patient, æt. 72 years, a native of Ireland, and a widow, was admitted to the hospital on the 19th of January, 1879. She was in the enjoyment of ordinary good health until the present sickness. On the 15th of January she was taken with pain in the side; there was no chill or vomiting. She felt that she was gradually growing weaker, and on the fourth day of her illness entered the hospital. At the time of admission her face was flushed, her respirations were 34, her pulse 98, and her temperature 104° F. There was evidence of consolidation affecting the lower lobe of the right lung.

On January 20th her morning temperature was 101° F., and afternoon temperature 103° F.

January 21st.—Morning temperature, 101° F.; afternoon, 102½° F.

January 22d.—Morning temperature, 100° F.; evening, 101° F.

January 24th.—Morning temperature, 99° F.; evening, 100° F. From that date up to January 28th the temperature remained at 99° F., and the patient was able to sit up. There yet remained evidence of consolidation of the lung.

One point of interest in the case was the mild course of the disease in a patient so old.

Pneumonia occurring in a person over seventy years of age usually proves fatal; but if not fatal, it is usually attended by symptoms more severe than those present. There were no cerebral symptoms. On the ninth day of the disease defervescence occurred, the temperature falling to 99° F., and remaining at or below that point. See treatment after the history of the following case.

Case II.—*Double pneumonia occurring in a patient well advanced in years—Recovery.*

A male patient, sixty years old, was admitted to the hospital January 11, 1879. He was taken sick on the 6th of January. The first symptom was a well-marked chill which lasted for one hour, and was followed by a febrile movement and sweating.

At the time of admission his pulse was 106, his respiration 46, and his temperature 103½° F. There was evidence of consolidation of the lower lobe of the left lung.

January 18th.—Pulse, 112; respiration, 40; and

temperature, 103¼° F. There was then evidence of consolidation of the lower lobe of the *right* lung.

January 14th.—Pulse, 102; respiration, 44; temperature, 104° F.

January 15th.—Temperature, 104° F.

January 16th.—Morning temperature, 101¼° F.; evening temperature, 108¼° F.

January 17th.—Morning temperature, 99¼° F.

After that date the temperature remained at about 99° F., and the patient was soon able to sit up.

On the 14th of January, in addition to other symptoms, there was well-marked delirium.

In both instances the disease occurred in old persons. In one case the disease was ushered in by a chill; in the other the first symptom was pain in the side, and there was no chill. In both the temperature had preserved about the same course, ranging between 102 and 104° F., until the day of defervescence, when it fell to 99° F. and remained. In the first case there were no general symptoms, although there was a well-marked febrile movement. She was not delirious. She seemed quite comfortable, and the only symptom demanding especial attention was the condition of the pulse. It was not rapid at any time, but it was recorded as feeble; at one time it was very feeble.

In the second case, on the other hand, delirium for a few days was a prominent symptom. When the temperature fell the delirium disappeared.

With reference to treatment, it had been very mild in both cases. In the first case, the only indication for treatment was the condition of the pulse. The temperature, not rising above 104° F., was not regarded as excessive for a case of pneumonia. She took milk very well, and, to meet the indication for treatment given by the pulse, whiskey was given.

It was administered in half-ounce doses every hour at one time, and as her pulse increased in strength her general condition improved, and the whiskey was repeated every two hours, then every three hours, and finally discontinued altogether. Quiet in bed, nourishment by milk, and the administration of whiskey constituted the treatment in the first case. In the second case the indications for treatment were somewhat different. He was much more sick than was the woman. He had a more serious form of the disease, and cerebral symptoms for several days were well marked. His pulse, however, continued good throughout. But his tongue at one time was quite dry, and his general appearance was such as indicated a fatal termination. The treatment was very simple, notwithstanding the alarming symptoms. During the days when his temperature was the highest, quinine was given in full doses, but it was doubted whether it was of any special service. He also received a moderate quantity of whiskey. Although very sick, his pulse continued in fair condition, and for that reason only a small quantity of whiskey was administered. The chief items in treatment were rest in bed and the administration of as much milk as the patient could take. He had made a very comfortable recovery.

CASE III.—*Pneumonia occurring in a young man—Indication for treatment—Recovery.*

A young man with a large frame, and a general appearance as if capable, when well, of considerable physical endurance, was admitted to the hospital with pneumonia, involving one lobe of one lung. At the time of admission he was very uncomfortable. He complained of pain in the side, felt sick and restless, and his face bore an anxious expression. He was not delirious at any time, but was in a condition which suggested the development of delirium at any moment. His temperature reached 105¼° F., and the pain in the side was severe. His pulse was not feeble, but full and rapid.

The indications for treatment were quite different from those presented in either Case I. or Case II.

Being a young man, he was not depressed by the disease, but felt the full effect of the febrile movement, and his pulse, instead of being weaker, was fuller and stronger than normal. He was very restless, suffered a good deal from pain in the side, and was very uncomfortable.

The principal indication was to make the patient more comfortable. It was believed that such a patient did not need quinine, although the febrile movement was marked. It was regarded as a case in which early general blood-letting would have been beneficial. Not that the course of the disease would have been shortened, but that the patient would have been rendered more comfortable, and at the same time would have recovered in the same manner in which he was recovering.

It was believed that such cases were benefited by another somewhat old-fashioned plan of treatment, and that was by the use of calomel and opium. Had he been treated by using pills containing calomel grs. ii., and opium gr. ¼, repeated every three or four hours during the first two or three days of his illness, he would have been made much more comfortable, but the course of the disease would not have been changed. Instead of either of those plans of treatment, there was still another which had not received the demerit of being old-fashioned, and yet was very serviceable in many cases. It was to put the patient under the influence of aconite combined with small doses of opium. Much the same effect could be produced by that plan as by either bloodletting or the combined use of calomel and opium.

The last plan of treatment was adopted in this case, and the patient's restlessness was alleviated, the pulse was rendered less full and hard, and his entire condition was made very comfortable. Defervescence occurred in the usual manner, and convalescence was established.

The indications for treatment in all cases of pneumonia were placed under two heads:

1. To bring the case to a satisfactory termination, to prevent the death of the patient; and 2, to render the patient as comfortable as possible while the disease was running its course.

To meet those indications no routine plan of treatment was applicable to all the cases.

Defervescence might occur at any time from the second to the seventeenth or eighteenth day of the disease, when the pneumonia was left to pursue its course without any treatment whatever. In most cases the sudden fall in temperature occurred between the fifth and the eleventh day of the disease.

That fact rendered it very difficult to tell what effect treatment produced; to decide whether the results seen were due to the plan of treatment in use, or to the natural course of the disease. That was no reason, however, why an effort should not be made to meet the indications evidenced by certain symptoms.

In pneumonia, as in other inflammatory diseases, the patient required a liberal amount of nourishment, and to meet that indication milk was the best food that could be employed.

It was known that in pneumonia a feeble pulse indicated considerable danger, and that was to be met by the use of alcohol.

It was also known that if the pulse was contracting too forcibly, the condition of the patient would prob-

ably be improved by bringing the action nearer to the normal.

At the same time, at the end of every case there seemed to be considerable doubt with reference to the amount of actual benefit the patient had received from any treatment.

#### URÆMIA ASSOCIATED WITH ELEVATION OF TEMPERATURE.

It has been said that one of the diagnostic points to be considered in deciding whether in a given case coma is due to uræmia, is that in pure uræmia there is no elevation of temperature. The case before us was an exception to the suggestion, because there was marked elevation of temperature and well-defined uræmic symptoms, without any known inflammatory complication. The patient was at once put upon the use of digitalis, in doses of half an ounce of the infusion every two hours. Dry cups were applied over the loins, a drop of croton oil was administered, and ten minims of Magendie's solution of morphia were given hypodermically.

## Progress of Medical Science.

BUCCO-PHARYNGEAL TUBERCULOSIS.—In a clinical lecture delivered at the *Charité*, Paris, Dr. Laboulbène gave the history of a case of this rare affection that had been under treatment for some time in his wards. On admission the patient presented consolidation and softening at the right apex, and an ulcer with sharply-cut, serrated edges, and a grayish base, situated on the right side of the hard palate, extending from the canine tooth to the posterior part of the gum. The upper gingivo-labial fold also presented some ulcerations, with slightly fungous bases. These ulcers were very painful; mastication was also difficult. Some yellowish points were discovered scattered along the borers of the ulcers. The diagnosis was tubercular ulcers of the mouth, and it was subsequently confirmed by the autopsy.

In the evolution of this affection, the initial stage is always overlooked. The patient presents a few grayish granulations on the bucco-pharyngeal mucous membrane, but there are no appreciable subjective or objective symptoms. The ulceration begins by removal of the epithelium, thus laying bare the granulation. This soon disappears, and then the painful stage begins. The contact of cold air, of wine, and of food, and the movements of the tongue, excite pain, which is sometimes so intense that the patient refuses all nourishment. The salivation is often very profuse. The glands in the submaxillary regions are never markedly enlarged, and are often perfectly intact. Later on, the patients present symptoms of pulmonary, abdominal, or cerebral tuberculosis. When examined with a strong light, the edges of the ulcers are seen to be elevated and scalloped. Some of the ulcers are round, and some serpiginous; some are old and others recent. Alongside the ulcers a number of yellowish points, or granulations, will be found. This is a pathognomonic sign. The ulcers are very persistent, but recovery is possible. The yellow granulations are always found in the recent ulcers, but may be wanting in the older ones. When enucleated, they are found to consist of a few connective-tissue fibres and minute elements, smaller than blood-corpuscles, containing nuclei that can with difficulty be seen. These granular elements are shrivelled and caseified embryonic cellules, the characteristic elements of tubercle. When a section is made through an ulcer, the little vessels going to it are seen to be surrounded by rings of leucocytes, which finally completely obliterate the lumen of the vessel.

The diagnosis of this affection from other lingual ulcerations, and more especially from syphilitic and cancerous ulcerations, is often exceedingly difficult. The prognosis is, as a rule, unfavorable; even if the ulcers should be cured, the diathesis persists. In the treatment the general measures to be adopted are those indicated by the diathesis. Locally, the tincture of iodine, nitrate of silver, perchloride of iron, and emollient gargles have been found to be useful. —*La France Médicale*, Feb. 19th and 22d.

NATURE OF THE YELLOW FEVER POISON.—Dr. H. D. Schmidt, pathologist of Charity Hospital, New Orleans, has had numerous opportunities for investigating the nature of the poison of yellow fever. He takes a decided stand against the germ theory, claiming it to be a disease depending, like small-pox, scarlet fever, measles, etc., upon a specific poison of animal origin, a product of the diseased human organism itself. In support of this position, he adduces the immunity from a second attack, which it possesses in common with all other specific diseases. The pathology of the disease also distinguishes it from those affections in which a *contagium vivum* has been found, for in place of the venous congestion, ecchymosis, softening of the spleen, and loss of coagulability of the blood, which are characteristic of this class, we have arterial congestion, normal spleen, and retained coagulability of the blood, although the latter has been erroneously reported as lost. In severe cases hemorrhages may take place from different mucous membranes, but hemorrhagic effusions into the interior organs are but seldom observed. The most characteristic phenomenon, however, is the fatty infiltration or degeneration constantly met with in a number of organs. The poison emanates from the body of the affected individual only in the gaseous form, and in this form may be absorbed by another individual, or, adhering to clothes, bedding, etc., may be transported to distant places, and there become other centres for distribution. As in the case of putrefaction, septicæmia, *the poison increases in intensity with each individual through whom it passes*; explaining the fact that the fatality of the disease increases as the epidemic advances. No bacteria, or other living organisms, are found in the blood of patients in any stage of the disease. The prevention of the disease involves the interesting and unsettled question of quarantine, and the perfect isolation of the first cases would certainly appear to be the most important sanitary measure.—*New York Medical Journal*, May, 1879.

TREATMENT OF CLEFT PALATE.—The success of staphylorraphy should not be measured simply by the extent of union obtained, but the ultimate object of the operation, the improvement of the speech, should be kept in view. That union is frequently obtained cannot be denied, but Dr. Kingsley claims that the improvement of the speech is but a rare sequel, owing to the shortness of the velum preventing the closure of the posterior nares. To accomplish the desired object, a soft palate made of rubber is more useful, and he narrates a case in which this was done with success. The patient had been operated upon ten years before, and the cleft in the soft palate closed; anteriorly an opening in the hard

palate was closed by an obturator. No gain had been made, however, in articulation. A velum of soft rubber was now made and passed through the opening in the hard palate, the anterior extremity being fastened to the obturator. The only immediate effect was a change in the tone of the voice; but a few weeks under the care of an elocutionist produced a marked improvement.—*New York Medical Journal*, May, 1879.

Iodine in the Treatment of Malarial Fever.—In corroboration of Dr. Willibrand's assertion that iodine is a specific remedy for malarial disease, comes the evidence of Dr. J. W. Wadsworth, Saltillo, Mexico, who has treated over three hundred cases of intermittent fever with this drug. He has records of two hundred and sixty of these cases, many of them being chronic cases extending over various intervals of weeks or months. In the severe cases ten to fifteen grains of quinine were given at first, followed by compound tincture of iodine, ℥ x. to ℥ xv.; in the severest cases arsenic was added. In every case the paroxysm was arrested within twenty-four hours, and twelve doses, or four days of treatment, were sufficient to guarantee a cure, with the exception of eight relapses, six being on the fourteenth day, one on the twenty-first, and but one on the seventh. In not a single instance, though under the most miserable hygienic surroundings, did there occur a failure to effect an immediate cure, when the medicine was taken as directed. Quinine and arsenic have often failed the writer, but iodine never.—*New York Medical Journal*, May.

Cholecystotomy.—This operation has been performed four times of late years; in 1876, by Prof. Bartholow, of Cincinnati, who aspirated a distended gall-bladder, and advised the exploration of the common and cystic duct in similar cases by passing a probe through the canula; in 1878, by George Brown, M.R.C.S., who opened into the abdomen, but failed to reach the gall-bladder; during the night, however, bile was discharged from the wound, and the woman subsequently recovered; the case of Dr. Sims, published in the *British Medical Journal*, June 8, 1878, was the next, and to him is due the credit of placing this on the basis of a deliberate operation in the surgery of the abdomen. Dr. Keen's case was published in the January number of the *American Journal of the Medical Sciences*. Petit, however, read a paper on this subject in 1783, and mentions some reported cases. Le Dran, Morgagni, and others speak of it as a proceeding to be considered under certain circumstances. In 1859 Dr. Thudichum suggested "performing an operation for the extraction of these foreign bodies (gall-stones) either in a direct manner or by forming a biliary fistula, and adopting a lithotriptic proceeding."—*American Journal of the Medical Sciences*, April, 1879.

Quinine and the Cerebral Circulation.—From the experiments of Cheirone, of Naples, published in the *Gazette Hebdomadaire* for 1875, taken with a series of experiments made by Dr. Hammond, Dr. Mary Putnam Jacobi draws the following conclusions: 1st. Quinine in small doses (seven to fifteen centigrams) causes active dilatation of the external cranial circulation of the rabbit. 2d. In larger doses this was more slowly produced, but when produced was much more persistent. 3d. In the trepanned rabbit this effect was much more slowly produced, and only at much larger doses. It was then as persistent as in the non-operated animals. 4th. Dilatation of the aural blood-vessels may be produced, while those of the pia mater remain absolutely unchanged.—*The Richmond and Louisville Medical Journal*, May, 1879.

Effects of Constipation upon Rectum and Anus.—Physiologically, the rectum is always empty, except shortly before the regular time for defecation. At this time the sigmoid flexure passes its contents into the rectum, and that uneasy sensation which is recognized as a call to evacuate the bowel is then experienced. If this call is resisted, a reversed peristaltic motion is excited in the walls of the rectum, and the fecal matter is returned to the flexure. When this neglect becomes habitual, the rectum ceases to empty itself completely and becomes a reservoir for fecal accumulations. Atony of the muscular wall results, the lining membrane of the gut hangs loose and flaccid, the whole pelvic circulation is interfered with, and hemorrhoids form. In this condition a drastic cathartic empties the bowel and forces the relaxed mucous membrane through the anus, where it is grasped by the sphincters; congestion, ulceration, and even sloughing of the entire constricted portion now result. The relation of cause and effect, though not always demonstrable, very frequently exists between constipation on the one hand, and fissure of the anus, abscess of the rectum, fistula in ano, internal and external hemorrhoids, prolapsus recti, stricture, and polypus of the rectum, etc., etc., on the other. It is a fact not sufficiently dwelt upon in this connection, that it requires but a short sojourn in the rectum to cause absorption of the fluids in the fæces, and to render the remaining matter hard and dry. Consequently, when the office of the large intestine has become deranged, and the natural disposition of the fæces interrupted, the rectum may contain dry fecal matter during the greater part of the time, notwithstanding that there seems to be a sufficient motion daily. In such cases the addition of water to the contents of the intestine is imperatively indicated. The bowel can be solicited to re-establish the suspended function, and the dry, hard, fecal matter can be softened by the daily use of an enema. In this way both indications can be met, and in the vast majority of cases a cure established.—R. A. Vance, M.D.—*The Cincinnati Lancet and Clinic.*

On Acute Leucocythæmia occurring in Diphtheria.—Prof. Bouchut made daily enumerations of the blood-corpuscles in all the cases of diphtheria that came under his observation within a period of six months, the number of analyses amounting to 177, and from the results obtained he has deduced the following conclusions: In severe septicæmic diphtheria there is always an acute leucocythæmia, which increases as the disease progresses, and diminishes when convalescence sets in. On the other hand, in the mild cases of diphtheria without septicæmia, there is no leucocythæmia, and the children always recover. In twenty-four cases, studied day by day throughout the whole course of the disease, the number of white globules varied between 5,000 and 10,000 in twelve out of ninety-three analyses, and between 10,000 and 100,000 in the other eighty-one, the average being 26,824. Prof. Bouchut insists on the necessity of daily examinations of the blood, as the number of white globules may be normal in one day and greatly increased in the next. He claims that valuable prognostic data may be gathered from these examinations, a rapid increase of the white globules indicating the occurrence of septicæmia, and pointing almost positively to a fatal termination, while a persistence of the normal relations between the red and white globules indicates a mild form of the disease, and almost certain recovery.—*Gazette des Hôpitaux*, Feb. 18th, 1879.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, June 7, 1879.


## CROUP AND DIPHTHERIA.

As long as the relationship between these diseases continues to be an unsettled question, discussions concerning them will have both interest and importance. For, there is no nosological dispute that involves therapeutical measures so closely in its decision. This fact, together with the circumstance that important contributions to the subject have recently been made, are a sufficient excuse for presenting what has been so repeatedly made the subject of discussion.

About two years ago the Royal Medical and Chirurgical Society appointed a committee to inquire into the facts concerning the etiology, relationship, etc., of these two diseases. Their report was recently presented; and, although it has not yet been printed for distribution, the general character of it has been sufficiently made known. They were directed to inquire as to whether membranous laryngitis existed as a separate disease from diphtheria, and, if so, whether there were any clinical or pathological criteria by which it could be recognized. The report was to embrace also the etiology and general course of the diseases. No especial reference was called for in regard to their morbid anatomy; and the fact that no distinction between the diseases can be made on such a basis seems to be generally acknowledged.

The committee have carefully and laboriously carried out the instructions given; and their report not only covers the grounds above mentioned, but contains an appendix, in which is furnished a digest of the replies to queries sent out to a great number of practitioners.

The conclusions of the committee, as well as the evidence furnished by the queries, we may as well state at once point towards a belief in the non-identity of the diseases, or to the belief that there may be a laryngeal croup which is not due to diphtheritic poison. In connection with such conclusion, it is important to remember the definition which they give of the two diseases. Croup, they say, is a term signifying a laryngeal obstruction in children, accompanied by a febrile movement, which may or may not be attended by false membrane. Diphtheria is a zymotic disease, accompanied by membranous exudation, and which may or may not be attended by croup. These definitions were not provisional, or adopted previous to the investigation, but represent rather their conclusions, which are further and more definitely expressed in the statement that "croup may be membranous or not membranous, due to diphtheria or not so." The very strong leaning towards duality in these expressions is, however, modified in other parts of the report; and it can be seen that the document is a compromise between the somewhat conflicting opinions of its members.

The question of identity has been considerably narrowed since, some five years ago, it began to be actively discussed, and it may be well to re-state it now. Physicians had for a long time met in their practice two classes of cases, of which a notable and common feature was a membranous exudation in the throat or larynx. The one was a contagious, asthenic disease, attacking adults occasionally, with the false membrane deeply imbedded in the pharyngeal mucous membrane, and attended with albuminuria, and followed by nervous sequelæ. The other appeared to be a sthenic, non-contagious disease, characterized by a superficial membranous exudation in the larynx, occurring only in children. The latter was a local inflammation only, while the former was a specific constitutional affection. In defence of the duality of these diseases, a difference in the character of the exudation was at first claimed; but this claim is, as we have stated, now generally abandoned. The question then rested on the differences in clinical history. The albuminuria of diphtheria was evidenced as characteristic, but albuminuria was shown to occur sometimes in croup; the contagiousness of diphtheria was presented, but it was urged that diphtheria itself was not always contagious. Further, the asthenic character and paralytic sequelæ of diphtheria were asserted to be not always characteristic of diphtheria, and were sometimes characteristic of croup. The force of many of these assertions had to be admitted by the advocates of the non-identity of the diseases, and it has been pretty clearly shown that many of the cases that have been considered croup were really cases of diphtheria, and that the former disease, if it did exist at all, was of rare occurrence. The dispute, indeed, seems to have now narrowed down to the question whether membranous laryngitis is always caused by the special poison of diphtheria. In asserting the affirmative, the advocates of identity make a very sweeping statement, and throw the burden of proof upon themselves. It seems to be very well established that a traumatic membranous laryngitis may be set up by ammonia, steam, foreign bodies,

etc.; and the claim that the exudation in these cases is only and always an eschar, is not, we believe, well sustained. If, then, membranous laryngitis can be excited by irritating agents of such gross character, why not by the more impalpable ones of atmospheric or telluric, but not necessarily diphtheritic origin? Thus the question stands, and the committee have furnished no evidence to settle it. Some time ago, in discussing this same question, we stated that the evidence then rather pointed towards the identity of the two diseases. That this is in general the case, we are still disposed to believe, but as yet it can by no means be asserted with certainty that the membranous laryngitis of children is always produced by the diphtheritic poison.

### PREVENTIVE MEDICINE.

THE old adage, "an ounce of prevention is worth a pound of cure," is pregnant with practical common sense. It is as equally applicable in the practice of medicine as in any other pursuit or profession, and receives the endorsement of the most experienced in the ranks of the medical profession. It is so much easier to keep out of the whirlpool by avoiding the rapids which lead directly to it, than by effecting an escape after once having entered them, that we give in full the words of one of the Nestors in our ranks upon this important subject. Dr. Samuel D. Gross closed his oration, delivered at the dedication of McDowell's monument, in the following significant words:

"Young men of the Kentucky State Medical Society, listen to the voice of one who has grown old in his profession, and who will probably never address you again, as he utters a parting word of advice. The great question of the day is, not this operation or that,—not ovariotomy or lithotomy, or a hip-joint amputation, which have reflected so much glory upon Kentucky medicine,—but preventive medicine, the hygiene of our persons, our dwellings, our streets—in a word, our surroundings, whatever and wherever they may be, whether in city, town, hamlet, or country, and the establishment of efficient town and State boards of health, through whose agency we shall be the better able to prevent the origin and fatal effects of what are known as the zymotic diseases, which carry so much woe and sorrow into our families, and often sweep like a hurricane over the earth, destroying millions of human lives in an incredibly short time. The day has arrived when the people must be roused to a deeper and more earnest sense of the people's welfare, and suitable measures adopted for the protection as well as for the better development of their physical, moral, and intellectual powers. This is the great problem of the day, the question which you, as representatives of the rising generation of physicians, should urge, in season and out of season, upon the attention of your fellow-citizens,—the question which, above and beyond all others, should engage your most serious thoughts, and elicit your most earnest co-operation. When this great, this mighty object shall be attained; when man shall be able to prevent disease, and to reach, with little or no suffering, his threescore years and ten, so graphically described by the Psalmist, then, but not until then, will the world be a paradise, with God, almighty, wise and merciful, in its midst, reflecting the glory of his majesty and power, and holding sweet converse in a thousand tongues with the human family."

## Reviews and Notices of Books.

THE PRINCIPLES AND PRACTICE OF GYNÆCOLOGY. By THOMAS ADDIS EMMET, M.D. Henry C. LEA, Philadelphia.

THE profession has long been looking to Dr. Emmet for some authoritative statement of his opinions and practice in the department which he has done so much actively to create. The volume before us is therefore sure to meet with a host of readers. The limits of this review preclude any attempt to give a complete synopsis of the work. The reader will find in its pages a full measure of that ripened experience which furnishes a book its real right to existence.

Chapter I., On the Relations of Climate, Education, and Social Development, contains some useful warnings and excellent advice. The opening sentence is rather lugubrious. "A thinking man," it states, "who has had opportunities for observation, cannot divest himself of the apprehension that the physical development of the women of our land is becoming deteriorated." It is, however, a great comfort to remember that, from the earliest history of our race, no thinking man ever did divest himself of gloomy apprehensions regarding the future of posterity. At any rate, coming as we do from a section of the country where men and women have the trick of nearly outliving the century, we have our suspicion that the sentence quoted is moonshine. Dr. Emmet does not, however, often treat the reviewer to an opportunity for criticism.

Chapter II., On Instruments used in Examinations, and Chapter III., On Surgical Instruments and Appliances, furnish a useful key to the pages which follow. The description of the vaginal tampon should be carefully studied. Chapter IV., On Modes of Diagnosis, is clear, and likely to prove of service to beginners. Chapter V., On Causes of Disease, Reflex and Direct, contains the following statement: "The female who has passed her life in celibacy is more liable, after the age of thirty, to suffer from the development of a fibrous tumor than the sterile, while the sterile is more liable than the fruitful woman." This conclusion is drawn from an analysis of 239 cases, and is interesting because a similar analysis by Winckel of 555 cases led him to a precisely opposite result.

The sixth, seventh, and eighth chapters are devoted to general treatment. They are explicit, and the recommendations in them will be subjected to an extensive trial. The triumph of hot-water injections in uterine affections is Dr. Emmet's own work. In 1853 Trousseau reported two cases in the *Gazette des Hôpitaux* (No. 33), in which the hot-water douche was

employed to control uterine hemorrhage. The hemorrhages were due respectively to abortion and cancer. The treatment was successful. The reporter of the cases states that Trousseau was led to a trial of the hot water by noticing the difference between the hands when one is placed in water at 104° while the other is immersed in water at the freezing point. The contrast between the bloodless condition of the former and the congested appearance of the latter after prolongation of the experiment, led to a trial of the hot water in uterine hemorrhage for the sake of obtaining its permanent secondary effects. Trousseau's idea was received with small favor at the time, and soon passed into oblivion. The fact is only brought up here to show the contrast between a happy thought and the patient experimentation which leads to the undisputed acceptance of a novelty in practice.

In Chapter XII., On Pelvic Hæmatocele, Dr. Emmet writes: "In twenty-five years there have been but four cases of hæmatocele treated in the Woman's Hospital," etc. This is quite remarkable, as it is not infrequent in Bellevue Hospital to meet with as many cases in a single year. The picture on page 243 represents the ordinary form of pelvic hæmatocele. It is hardly possible that the tumor could have been, as the text suggests, extra-peritoneal, as extravasations of blood into cellular tissue take place slowly, and are not of great size. In the rule the bleeding takes place into the posterior cul-de-sac, or sinks there from gravity. Inflammatory adhesions form, which shut off the effused blood from the rest of the peritoneal cavity. If after the tumor has become encysted fresh hemorrhage occurs, the fluid crowds the rectum and vagina downward, and presses the uterus upward and forward against the symphysis pubis. The most favorable conditions for the rapid production of a large hematocele dislocating the vagina, rectum, and uterus in the manner designated, take place when old inflammatory adhesions roof over the cul-de-sac of Douglas before the effusion takes place.

The reader will naturally turn with interest to the chapters on Vesico-Vaginal Fistula. Nothing nearly so good can be found elsewhere upon the subject. The controversial portion is written in admirable temper. Heretofore we had gotten to think that there was something in the nature of the subject which was incompatible with mental serenity, or temperate discussion. When we mentioned to the late Prof. Simon that Dr. Emmet had operated some four hundred times for vesico- and recto-vaginal fistulæ, the distinguished Heidelberg professor replied, "It is not true; I have operated more times than any man living, and I have not had nearly that number." In the careful study made of the causes of vaginal fistulæ it is to be regretted that no attention has apparently been paid to the influence of pelvic contraction in the production of the lesion. A series of carefully made pelvic measurements instituted in every case would have been of incalculable value to the science of midwifery.

In its general features Dr. Emmet's book is a surprisingly good one. The style is clear though not always elegant. The arrangement of the matter is excellent. In the preface the author says: "This work is essentially a clinical digest. It includes the results of my individual experience, and aims to represent the actual state of gynæcological science and art." Fortunately, Dr. Emmet's experience has been so exceptional, his industry so untiring, that the manipulation of his own material has left little room for introducing the handy-work of others, or at least of those outside his immediate circle of associates. How much of all the work that has been accomplished in gynæcology during the last fifteen years has been done in the New York State Hospital for Women, and how much of the work there accomplished falls to the credit of Dr. Emmet, can only be judged by reading the book through. It is hardly likely that a similar experience will fall to the lot of any single man in the coming generation. Gynæcological methods are gradually becoming diffused and popularized. With the removal of the mystery which has surrounded the diagnosis of pelvic disorders, their treatment is destined to enter more and more into the domain of general practice. For those who are eager not only to become familiar with the higher triumphs of uterine surgery, but who are anxious as well to enter the lists and to do their part in the work, we cordially recommend Dr. Emmet's book as a capital guide, teeming with wise instruction.

# Reports of Societies.

## THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

### THIRTIETH ANNUAL MEETING.

*Held in Chester, May 21, 22, and 23, 1879.*

WEDNESDAY, MAY 21ST.—FIRST DAY.

AFTERNOON SESSION.

THE Society met, pursuant to adjournment, in Holly Tree Hall, in the city of Chester, at 3 o'clock P.M., and was called to order by DR. WM. B. ULRICH, of Chester, Chairman of the Committee of Arrangements. The President, DR. JAMES L. STEWART, of Erie, Pa., took the chair.

Opening prayer was offered by the REV. HENRY BROWN, of Chester.

The names of the delegates as registered on the book were read by the Permanent Secretary, DR. WILLIAM B. ATKINSON.

THE ADDRESS OF WELCOME

was delivered by DR. WILLIAM B. ULRICH on behalf of the Committee of Arrangements. He welcomed the delegates to the "old town but young city of Chester," and commented upon the manifold advantages and good results of such reunions as the present, and closed with an eloquent reference to the spirit of progress.

MISCELLANEOUS BUSINESS.

The Chairman of the Committee of Arrangements, DR. W. B. ULRICH, reported by reading the programme of the meetings and several invitations to entertainments. These invitations were accepted and the thanks of the Society tendered.

REPORT OF CORRESPONDING SECRETARY.

DR. OSCAR H. ALLIS, of Philadelphia, the Permanent Corresponding Secretary, then made his report, acknowledging the receipt of the Transactions of the State Medical Societies of Ohio and South Carolina. He also introduced a complaint signed by fourteen members of the Columbia County Medical Society, which was referred to a special committee to report on the next day. The committee consisted of DRS. Andrew Nebinger, of Philadelphia, Traill Green, of Easton, A. H. Halberstadt, of Pottsville, J. A. Murphy, of Wilkesbarre, and A. Thayer, of Erie. A committee on unfinished business, consisting of DRS.

Fricke, of Philadelphia, Hengst, of Philadelphia, and Orth, of Harrisburg, was also announced at the same time.

ADDRESS ON SURGERY—THE TREATMENT OF WOUNDS.

Dr. Charles T. Hunter, of Philadelphia, in his report, referred to the necessity of arresting hemorrhage. He was in the habit of always thoroughly wiping off a wound, and thought it was the better plan to open the wound whether the hemorrhage had stopped or whether the bleeding still continued. Where the stump was filled with clots he always made it a point to open the wound and remove all the clots. He discussed the merits of the catgut ligature, of the method by torsion of closing wounds, and of all the other ordinary methods. The catgut ligature he considered to be by all odds the best. It did not act as a foreign body in the tissues, but was either, as held by Fleming, disorganized and dissolved, or if not disorganized, its place was at least filled very soon by organized material. He wished particularly to dwell upon the value of catgut as a ligature for wounds of the larger nerves and of the tendons. The catgut, in such cases, should pass through the cellular tissue and nerve-sheath, but not through the tissue of the nerve itself. To preserve the approximation of the surfaces of wounds, it was necessary to apply compresses, and to fix the part in a splint.

Regarding drainage, he preferred to drain wounds by means of Chassaignac's (1859) tube. In closing a wound the sutures should be placed very close—not more than mm. 10–15 apart.

He was accustomed to insist upon immobility, whether the movements of the muscles were liable to disturb the approximation of the surfaces or not. The part should be placed at once upon a splint. Immobility should be maintained inviolate until the wound was fully healed, and should be assured in the very simplest wound.

The speaker believed in dry and infrequent dressing. The dressing should be light and just large enough to protect the surface. Compression of a gentle character should be always employed, but there should be no constriction for fear of obstructing the circulation. He always regarded the clinical thermometer as an excellent and most reliable index of the temperature of a wound. If the degree of temperature marked by it was under 100° F. he never allowed the dressing to be disturbed short of six days, and usually retained it in position as long as ten days. The popular idea that wounds of the face and head heal more rapidly because the parts are more vascular, Dr. Hunter said was an error; the legs and hands were just as vascular, and wounds of those parts would heal just as rapidly if they can be kept perfectly quiet.

Dr. Charles D. Nancrede, of Philadelphia, strongly emphasized the speaker's estimate of the catgut ligature. He believed that he was the first person in Philadelphia to use the catgut ligature and to employ the antiseptic, or Lister method. He had used the catgut ligature twice with great success in the coaptation of wounds of tendons, and had never known of any secondary hemorrhage following its employment. The wounds in which it was used had healed with wonderful rapidity. He could also bear testimony to the value of the clinical thermometer. If the scale did not at any time reach a higher point than 101° F., he was accustomed to have his residents at the Episcopal Hospital, in Philadelphia, allow the dressing to remain undisturbed.

Upon the motion of Dr. Benjamin Lee the thanks of the Society were tendered Dr. Hunter for his address.

SPAYING FOR SOME OF THE DISORDERS OF MENSTRUAL LIFE.

Dr. W. Goodell, of Philadelphia, spoke of the various forms of disease peculiar to the menstrual period, such as fibroid tumors, chronic ovaritis and ovaralgia, prolapse of the ovaries, chronic pelvic peritonitis, ovarian epilepsy and ovarian insanity—in fact all the forms of pernicious menstruation, and referred to the great difficulty in treating them, and to the fact that they generally remained unmanageable until the change of life.

He wished to illustrate, by some cases of his own, the treatment of those conditions first proposed by Dr. Robert Battey, of Rome, Ga., who effected an artificial change of life by removing both ovaries. That operation was called "normal ovariotomy" by its originator, but he was inclined to define the operation by the good old Saxon word, "spaying." He was supported in the use of that term by such a celebrated authority as Dr. Aveling.

Case. I.—A married woman, æt. 33. This patient was scarcely ever free from pain, which came on before each menstrual period, and lasted all through menstruation, so that she passed three weeks out of every four in bed. The patient consulted Dr. S. Weir Mitchell, who called in Dr. Goodell upon the discovery of the presence of an abdominal tumor. At the time when Dr. Goodell first saw the patient she was thin, pale, and bloodless. Examination revealed an ante-flexed womb imbedded in the hilus of a kidney-shaped fibroid tumor. The sound gave a measurement of three inches. The tumor turned out to be a subperitoneal fibroid. It was determined to remove both ovaries. The operation was followed by but slight hemorrhage. Its effect was wonderful. In six months the tumor was no larger than a horse-chestnut in size. At last accounts the patient had walked four miles into the country in search of flowers.

(Dr. Goodell had collected eleven cases of spaying for fibroids besides his own, making twelve in all. In three of those death had ensued; but in those three cases the abdominal section had been made. In the remaining nine convalescence had been uninterrupted, the menopause had been established, and the tumors had decreased in size.)

He then gave the history of three cases—one successful, one death, and one in which the mental condition of the patient was not improved.

Dr. Goodell stated that he had collected statistics of 51 operations for the removal of the ovaries; out of those there had been 15 deaths. Of the 20 patients from whom the ovaries had been removed per vaginum, but 4 had died, while of the 31 cases in which abdominal section had been made, 11 had died. He always performed the vaginal operation first, and if he found it impossible to remove the ovaries through the vagina, he then made the abdominal section and used the vaginal wound as a drainage-opening. The abdominal section should always be made while the patient was lying on her side. He had no doubt that the fact that he had operated upon his third case while the woman was in the lateral position had been the cause of death. The spray should always be kept going while the abdomen was open. He had just removed a fibro-cystic tumor by incising the abdomen from the ensiform cartilage to the pubis, and the patient had recovered without a single bad symptom. Out of 132 cases collected by a European writer, there were 15 in which menstruation had continued

after both ovaries had been removed. He had no doubt that that continuance of the menses was due to the presence of a third ovary—*post-mortem* examinations often revealing the presence of one or more supernumerary ovaries. His general experience had been that the sexual appetite remained unchanged by the operation.

The paper was referred to the Committee of Publication.

Discussion being open,

Dr. John Curwen, Superintendent of the State Insane Asylum at Harrisburg, remarked that Dr. Goodell's fourth case had been under his care for the past four months, and had become a continued, from being at first a paroxysmal case of insanity.

Dr. Albert H. Smith, of Philadelphia, regretted that Dr. Goodell had chosen such a title for his really valuable paper—using a term which was only employed in connection with the lower animals. It would be much better to preserve the title of its first advocate and call it "Battey's operation."

Dr. T. J. Gallaher suggested that obstinate cases of nymphomania might be cured by the operation in question. Might it not also be inflicted as a punishment upon prostitutes?

Dr. Ellwood Harvey, of Chester, did not know why male as well as female prostitutes should not be spayed.

Dr. Goodell was quite willing to accept Dr. Smith's proposal and would change the name of his paper to "Removal of the Ovaries," etc. He was not by any means sure that the operation would cure nymphomania. Drs. Spencer Wells, Atlee, and Peaslee, had all concurred in the opinion that the sexual feeling was the same, if not greater, after the ovaries had been removed.

### JUVENILE INSANITY.

Dr. Isaac N. Kerlin, Superintendent of the Home for Feeble-minded Children, at Media, read a paper with the above title. Mental disease, he said, was more frequent in childhood than was commonly imagined. According to the statistics of Dr. Bourteville, the proportion of insane children, between the ages of five and nine years, was 10 per cent.; between ten and fourteen years, 35 per cent.; and between fifteen and nineteen years, 20 per cent. It was not improbable that many of the minor forms of juvenile insanity were allowed to go unrecognized, being regarded as a temporary consequence of sympathetic disturbance, or the sequel of acute disease, and so likely to pass away when the cause was removed, or overgrown. In many cases that happy sequence did not occur, and the little victims sank rapidly into the dementia of idiocy, or developed into erratic, excitable, vicious childhood, passing through the courts, and the refuges and reformatories as criminals, from whence they graduated into other planes of crime.

The paper was referred to the Committee on Publication, and the meeting was adjourned to meet at 8 P.M.

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## First Day—Evening Session.

The Society was called to order at 8 P.M., to listen to the

### PRESIDENT'S ANNUAL ADDRESS.

Dr. Stewart occupied his allotted time by a brief review of the lives and characters of some of the learned and distinguished gentlemen who had presided over the Society in past years. He spoke only of those who were no longer with us, but had rested from their labors. It was a fine sentiment advanced by Confucius that "we ought to keep the dead before our eyes and know them as if they were still living." In our eulogies and encomiums upon the great advances made in medicine, we should constantly recollect what we owe to the men of former years, who so laboriously laid the foundations upon which we were now building. Moreover, in the department of the practice of medicine, it might well be doubted if the profession, with all its improved appliances and aids, was much more successful than it was twenty-five or thirty years ago.

Dr. Stewart then referred somewhat at length to the lives of the following former presidents of the Society: Dr. Hume, of Lancaster, Dr. Heister, of Berks Co.; Dr. Carpenter of Schuylkill Co.; Dr. Cunningham, of Beaver; Drs. Concha, Jewell, and La Roche, of Philadelphia; Dr. Wallace, of Berks; and Dr. Atlee, of Philadelphia.

The Society then adjourned, to meet at 9 A.M., on Thursday morning.

## Thursday, May 22d—Second Day—Morning Session.

The Society was called to order at 9.30 A.M., by the President. The proceedings were opened with prayer by the Rev. A. T. Dobson, of Chester.

The reports of the county societies were referred to the Committee of Publication.

### NOMINATING COMMITTEE.

The following names were read by the Secretary as members of the Nominating Committee: Drs. E. Melhorn, Adams Co.; L. De B. Kuhn, Berks; J. W. Neeley, Allegheny; H. Pratt, Bucks; Jacob Price, Chester; M. F. Nelson, Mifflin; W. W. Dale, Cumberland; H. McGowan, Dauphin; Milner, Delaware; A. H. Thayer, Erie; J. W. Hughes, Indiana; B. B. Smith, Tioga; J. G. Sloan, Washington; W. S. Rowland, York; H. S. Wishart, Franklin; A. T. Palmer, Jefferson; J. M. Livingston, Lancaster; J. E. Bulkley, Lucerne; J. S. Fulmer, Northumberland; Swartz, Perry; A. H. Smith, Philadelphia; F. J. Birch, Schuylkill; Lyman, Bradford; Craig, Beaver; T. Lyon, Lycoming; S. Wolf, Montgomery; A. Gillausteller, Montone; Jas. Engleman, Northampton.

### REPORT ON MEDICAL LEGISLATION.

Dr. R. L. Sibbett, of Carlisle, the Chairman of the Committee, stated that a memorial had been prepared and laid before the Legislature, now in session, requiring the registration of all practitioners of medicine and surgery by the prothonotaries of the several counties of the State. Should this bill fail to become a law, the committee requested that the members of the several county societies there represented commence registration immediately under the existing law which required the prothonotary of each county to purchase a record book, which might be called the "Medical Register" of the county.

With regard to the resolutions concerning compensation for medical experts in criminal courts, and the right to give or withold an opinion in such courts as presented by the Lycoming County Society and referred to the committee, Dr. Sibbett said that the committee were not yet ready to touch the matter or to express any definite opinion upon a subject regarding which so much difference of opinion now existed.

The report was accepted and the committee continued.

Dr. Traill Green, of Easton, said that the prothonotary of his county had procured a book and was

very willing to do the work, but had no means of forcing physicians and surgeons to register.

Dr. Stewart, of Erie, the President, said that the law had been enforced in his county, and that an irregular practitioner had been arrested and had given bail, and then left the neighborhood for parts unknown.

REPORT OF THE COMMITTEE ON MEMORIALIZING THE LEGISLATURE ON FEMALE SUPERINTENDENTS FOR FEMALE DEPARTMENTS FOR STATE HOSPITALS FOR THE INSANE.

The report was read by Dr. Traill Green, a member of the committee, who said that the committee had prepared a memorial and had caused a copy to be sent to every member of the State Senate and House of Representatives; that they had also prepared and placed in the hands of the Hon. Wm. B. Roberts, representative of Montgomery County, the following bill entitled "An Act for the better regulation and treatment of the female insane in the asylums and hospitals of the Commonwealth of Pennsylvania:

"*Section I.*—Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by the authority of the same: That in all hospitals or asylums now built or hereafter to be built and under control of the State, and in which male or female inmates are received for treatment, it shall be the duty of the trustees of said asylums or hospitals to appoint a female superintendent who shall be a skilful physician and who shall reside in said asylum or hospital, and who shall have the entire medical control of said female inmates.

"*Section II.*—That said female superintendents shall be appointed by said trustees for a term of not less than five years, and shall not be subject to removal within that term except for infidelity to the trust reposed in them, or for incompetency.

"*Section III.*—This act shall take effect, as to asylums and hospitals already built, in one year from the date of the passage of the bill.

"*Section IV.*—That all acts and parts of acts inconsistent with the provisions of this act be and are hereby repealed."

The Legislative Committee returned this bill to the house with an "affirmative recommendation," not one member dissenting. As soon as it was referred to the Judiciary Committee, the following memorial was placed in the hands of the Senate:

"To the honorable Senate and House of Representatives of the Commonwealth of Pennsylvania:

"The memorial of the undersigned members of the medical profession respectfully represents that they have learned with surprise of the introduction of a bill into the House of Representatives compelling the boards of trustees of the different State hospitals and asylums for the insane to appoint "female medical superintendents," who are "to have entire control of the female patients," and thus be independent of the chief medical officers of these institutions. Believing, as they do, that having two superintendents, acting independently of each other, in these institutions, cannot but prove detrimental to their best interests and the welfare of their patients, tending, as such an arrangement must, to destroy harmonious action, proper discipline, and good order, your memorialists trust that the bill referred to will not receive your favorable consideration. The views of your memorialists are fully confirmed by all practical experience in the management of these institutions during the last forty years, and much of the success which has attended them has resulted from a system directly in opposition to the principles of the bill now under consideration."

This memorial, headed by the signatures of Isaac Ray, Samuel D. Gross, Thos. S. Kirkbride, D. Hayes Agnew, and J. M. Da Costa, led the Judiciary Committee to report the bill to the Senate with a "negative recommendation."

Subsequently, the Board of Managers of the State Hospital for the Insane at Harrisburg met, and, with only one dissenting vote, passed resolutions emphatically endorsing the bill as before the Senate. Robert Lamberton, Esq., of Harrisburg, legal advocate, with these resolutions in hand, and, aided by Representative Roberts, had succeeded in again putting the measure upon its feet. Thus the matter now stood.

Upon the conclusion of the report, Dr. Isaac Kerlin, of Media, read a minority report, opposing the bill, citing the memorial of Philadelphia physicians and surgeons above quoted, and concluded with the reading of a private letter written him by Miss Dorothea L. Dix, in which that eminent philanthropist and benefactor of the insane argued against the change.

The question being open for discussion, Dr. John Atlee, of Lancaster, characterized the resolutions passed at the last meeting, creating the committee, as sprung upon the society. He was proud to say that he was the one member of the Board of Managers of the State Asylum at Harrisburg who had voted in the negative. He did not believe in two heads for an institution, but had no objection to having females appointed as assisting superintendents, provided they served an apprenticeship and got the knowledge and experience necessary for the successful treatment of the insane. He moved that the committee be discontinued, and that no further action be had in the matter.

Dr. Traill Green denied utterly the imputation cast upon the inception of the movement by Dr. Atlee. He did not himself believe in a double-headed institution any more than Dr. Atlee, but the plan proposed was to have the male and female departments distinct and separate from each other, with distinct and separate superintendents. If young men who had freshly graduated from the colleges were thought competent to take charge of the insane, he did not see why the young women graduates should not be fitted to do the same thing. He himself was at first opposed to the change, but with time and reflection he had been led to believe implicitly in its necessity.

After remarks by Drs. Hiram Corson in the affirmative, and by Dr. S. T. Davis, of Lancaster, in the negative, a motion was made by Dr. Albert H. Smith that the report of the majority be received and adopted as the sense of the Society. That motion was carried by a vote of 37 to 28. The minority report, upon motion of Dr. O'Neill, of Gettysburg, was referred to the Committee of Publication.

REPORT OF COMMITTEE ON EPILEPSY AND INSANITY.

Dr. John Curwen, the Chairman, stated that as no statistics relative to epilepsy as a cause of insanity had been forwarded to the committee by any of the county societies, he was manifestly unable to make any report on the subject. He wished to speak very strongly, however, against the but too common practice of declaring criminals to be insane when they ought to be hung.

The speaker was supported in this position by Dr. Traill Green.

ADDRESS ON MEDICINE.

In the absence of Dr. Andrew Fleming, of Pittsburg, the Address on Medicine, written by him, was read by the Secretary, Dr. Atkinson. The paper was a lengthy one, and had as its title the "Symptoms, Prognosis, Diagnosis, and Treatment of Nervous or Emotional Fever."

CHOLERA INFANTUM.

Dr. Ellwood Harvey, of Chester, read a very interesting paper with the above title, embodying the results of a very extensive practice. The reader said that the greatest number of recoveries in cases brought under his care were the result of good nursing, where the children had been kept in cool, quiet, darkened rooms while sleeping, and had been fed with judicious care. The fatal terminations were in the homes of those who lived in one room, with the heat of a cooking-stove and its attendent odors; with the thumping of cradle-rockers on an uncarpeted floor, with glaring light; with the gabble of visitors over the sleeping child; and with all the other destructive conditions incident to such circumstances.

The first symptoms of the disease were those which pointed to some disturbance in the brain, such as clutches at the sides of the head with the hands, pulling the ears, throwing the head backward in sleeping, sleeping with the eyelids partly open and with the eyes turned upward. That was the beginning of cholera infantum, and at that stage it was easily cured by making the patient cooler, diminishing the food to an amount that could be easily digested, cutting the gums if they needed it, and, if those means were not sufficient, by blistering the scalp. The one essential cause of the disease seemed to be *excessive heat*, either of the weather or of the heated room, which might be increased in either case by too much covering over the child.

In severe attacks the speaker recommended blisters to be applied as early as possible to the denuded scalp, one on each side of the head above the ears. The plaster should be spread thick. Blisters on the scalp were slower to draw than on other parts of the body, were less painful, and healed quickly without dressing. If a crop of boils followed the blisters, there would be no more cholera infantum while they lasted. It was useful, in every case, to allow plenty of water. No treatment would succeed if the child was kept too warm. The more the patient slept the better. Always secure for it during sleep a cool, quiet, dark room, allow no talking in the room while it was asleep. When awake have it carried out in pleasant, quiet, shady places. The paper was referred to the Committee on Publication.

Dr. Benjamin Lee said that he agreed fully with the speaker in regard to the causation of the disease. He was convinced that its sole cause was intense heat. He did not consider the disease as one of the alimentary canal, but of the nervous system. If nothing else would do good but blisters, he should not hesitate to use them, but he preferred milder measures at first, such as tepid-baths and ice to the spine

Dr. Hiram Corson was not much in favor of blistering. When the child was quite unconscious, he had been accustomed for a number of years to lay an ice pillow under the back of its neck.

The paper was further discussed by Drs. T. J. Gallaher and Wm. B. Ulrich.

THE DIAGNOSIS AND TREATMENT OF FRACTURES NEAR THE JOINTS.

Dr. Packard, of Philadelphia, read a paper upon the above subject. It was almost always difficult to determine upon the exact seat of a fracture. The existence of fractures near the joints was not often, if ever, referred to by authors. Pilcher, of Brooklyn, had published a case of a fall on the wrist where the ligaments had been strained and the bone fissured. There was, in most cases, a spot of limited tenderness over the upper ends of such fissures. Such fractures (*i. e.*, those near the joint) almost always ran in a direction which favored impaction. In dealing with all such cases, it was important to warn the patient that permanent stiffness might ensue. In treating such fractures, it was generally necessary to etherize the patient.

The paper was discussed by Drs. H. Lenox Hodge, of Philadelphia, and John Atlee, of Lancaster.

FRACTURE OF THE LOWER END OF THE RADIUS.

Dr. R. J. Levis, of Philadelphia, made a few remarks on this subject, and exhibited a new splint for the treatment of such fractures, devised by himself, and manufactured by Mr. Gemrig, of Philadelphia.

STATE BOARD OF HEALTH.

The following was offered by Dr. T. S. Crawford:

"*Resolved*, That the Medical Society of the State of Pennsylvania, now in session at Chester, Delaware County, views with the deepest satisfaction, the progress of the Senate bill, in the House of Representatives, to create a State Board of Health. Seeing in it a promise that our great commonwealth will not long remain behind our little sister State of Delaware in establishing this much needed agency for the better protection of the lives and health of our citizens.

"*Resolved*, That this resolution be forwarded by telegraph to the appropriate officer of the House of Representatives."

Adopted.

THE LEGAL RESTRAINT OF HABITUAL DRUNKARDS.

The following was offered by Dr. Michael O'Hara, of Philadelphia:

"*Resolved*, That the bill now before the Legislature of this State, providing for the legal restraint of habitual drunkards in asylums especially designed for the treatment of those so unfortunately affected, commands the entire sympathy of this Society, and that we do not hesitate to urge upon the House of Representatives the duty of providing such a resource for the victims of inebriety, and the protection of their families and their property.

"*Resolved*, That this resolution be communicated to the proper officer of the House of Representatives at once."

Adopted.

ADVICE TO MEDICAL JOURNALS.

The following was offered by Dr. Geo. Hamilton, of Philadelphia:

"*Resolved*, That it is the sense of this Society that the various medical journals of this country should devote more space to general medicine and surgery, to the exclusion of extraneous matters."

Adopted.

The Society then adjourned.

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Second Day—Afternoon Session.

The meeting was called to order by the President, and the Secretary read an appeal by J. P. Seiler, of Dauphin County, from the decision of the censors of his district.

Upon motion of Dr. William Pepper, of Philadelphia, a committee of five members of the Society was appointed to inquire into the merits and demerits of Dr. Seiler's case, and to report upon it at the next yearly meeting of the Society.

The death of Dr. Thompson, of Dauphin County, being here announced, a few eulogistic remarks were made by Dr. Jno. Atlee, of Lancaster.

REPORT OF THE NOMINATING COMMITTEE.

The Committee on Nominations made the following report:

*For President.*—Andrew Nebinger, M.D., of Philadelphia.

*For Vice-Presidents.*—Wm. B. Ulrich, M.D., of Delaware County; Jacob L. Zeigler, M.D., of Lancaster County; George A. Lynn, M.D., of Washington County, and Joseph A. Murphy, M.D., of Luzerne County.

*For Permanent Secretary.*—Wm. B. Atkinson, M.D., of Philadelphia.

*Recording Secretary.*—To be chosen by the Blair County Society.

*For Corresponding Secretary.*—Oscar H. Allis, M.D., of Philadelphia.

*For Treasurer.*—Benjamin Lee, M.D., of Philadelphia.

*For Committee on Publication.*—Drs. Wm. B. Atkinson, Benjamin Lee, Wm. Souder, Oscar H. Allis, J. G. Stetler, and James Tyson, all of Philadelphia, and Isaac N. Kerlin, of Media.

*For Delegates to the American Medical Association.*—Drs. J. L. Stewart, Erie County; James Tyson, Philadelphia; J. T. Carpenter, Schuylkill; Louis Kuhn, Berks; M. F. Hudson, Mifflin; Jas. M. Sherrer, York; J. S. Crawford, Lycoming; James B. Ely, Perry; Jonathan E. Bulkley, Luzerne; Rob. B. Brown, Jefferson; Nathan McDonald, Allegheny; A. M. Miller, Lancaster; J. L. Blackley, Washington; Isaac Purcell, Montour; S. R. Rutledge, Indiana; J. R. Swigert, Snyder, Charles Stubbs, Chester; Robert Horner, Adams; Ellwood Harvey, Delaware.

*For Delegates to the New Jersey Medical Society.*—Drs. Oscar H. Allis, Philadelphia; J. S. Crawford, Lycoming County; George R. Welchens, Lancaster.

*For Delegates to the New York State Medical Society.*—Drs. A. R. Blair, York; A. Thayer, Erie; J. Ogilbie, Montour; S. S. Kosier, Schuylkill.

*For Delegates to the Ohio State Medical Society.*—Drs. S. A. Craig, Beaver; W. C. Evans, Erie; Geo. A. Lynn, Washington; S. Stebbins, Chester.

*For Delegates to the Delaware State Medical Society.*—Drs. W. W. Dale, Cumberland; R. B. Ewing, Chester.

*For Delegate to the West Virginia State Medical Society.*—Dr. H. G. Christman, Franklin.

*For Delegates to the Maryland State Medical Society.*—Drs. W. S. Rowland, York; J. W. C. O'Neill, Adams; Frank E. Mack, Schuylkill; Alexander Craig, Lancaster.

*For Delegates to the Massachusetts State Medical Society.*—Drs. John W. Hughes, Indiana; A. H. Halberstadt, Schuylkill.

*For Delegate to the Connecticut State Medical Society.*—Dr. Thomas W. Birch, Schuylkill.

*For Censors for the First District.*—Drs. A. Fricke, Philadelphia; J. N. Kerlin, Delaware; J. Fulton, Chester.

*For Censors for the Second District.*—Drs. J. B. Walton, Bucks; Traill Green, Northampton; W. B. Erdmann, Lehigh.

*For Censors for the Third District.*—Drs. Hiram Corson, Montgomery; W. Murray Weidmann, Berks; D. W. Bland, Schuylkill.

*For Censors for the Fourth District.*—Drs. Brainherd Leaman, Lancaster; H. O. Whitman, Dauphin; H. O. Orris, Perry.

*For Censors for the Fifth District.*—Drs. L. B. Kieffer, Cumberland; J. W. C. O'Neill, Adams; Jas. W. Kerr, York; S. G. Lane, Franklin.

*For Censors for the Sixth District.*—Drs. A. H. Shaeffer, Mifflin; D. P. Miller, Huntington; John Fay, Blair; J. G. Wilson, Cambria; D. S. Griffith, Bedford.

*For Censors for the Seventh District.*—Drs. W. S. Duncan, Fayette; D. G. McConaughy, Westmoreland; A. Anderson, Indiana.

*For Censors for the Eighth District.*—Drs. W. S. Forster, Allegheny; L. S. Blackley, Washington; D. S. Margin, Beaver.

*For Censors for the Ninth District.*—Drs. S. Graham, Butler; E. Griswold, Mercer; W. S. Welsh, Venango; J. Ross, Clarion.

*For Censors for the Tenth District.*—Drs. A. S. Bonsted, Erie; T. J. Young, Crawford; David Best, Crawford.

*For Censors for the Eleventh District.*—Drs. C. Hibler, Centre; C. K. Thompson, Tioga; Thos. Lyons, Lycoming.

*For Censors for the Twelfth District.*—Drs. J. D. Strawbridge, Montour; E. R. Mayer, Luzerne.

*For Censors for the Thirteenth District.*—Drs. D. N. Newton, Bradford; L. A. Smith, Susquehanna.

The next place and time of meeting to be the city of Altoona, on the third Wednesday of May, 1880.

THE ADDRESS ON HYGIENE.

Dr. R. A. Cleemann, of Philadelphia, began his address with words of warning against too hasty generalizations in hygiene—as, for instance, in attributing too much to sewer-gas as a cause of typhoid fever; also as claiming too much in the prevention of disease by measures of cleanliness, without taking into consideration the exclusion of specific causes. He then spoke of the statistics of cancer as showing a vast increase in mortality from this cause, and discussed the question whether marriages should be advised between those inheriting the predisposition to this disease, deciding strongly in the negative.

Dr. Cleemann closed with a notice of the establishment of a National Board of Health, and of the progress of a bill at Harrisburg creating a State board.

EXTENSION AND FIXATION IN THE TREATMENT OF SPINAL CURVATURE, WITH A DEMONSTRATION OF THE USE OF THE POROUS FELT JACKET.

Dr. Benjamin Lee, of Philadelphia, was introduced, and proceeded to demonstrate the great benefit derived from the application of the porous felt jacket for the treatment of spinal curvature. The great superiority of this preparation over the plaster jacket depended upon the ability of the excretions of the skin to escape through the pores in the felt material, and so conduce to the health of the patient. Dr. Lee illustrated his remarks by various drawings and crayon sketches on the blackboard.

A CLINICAL CONTRIBUTION TO EXOPHTHALMIC GOITRE.

Dr. Pepper read a very interesting clinical paper on this disease, giving the history of thirty-one cases in his practice. The ages of the patients ranged from ten to seventy years. The speaker declared the disease to be more frequent in the female than in the male, and considered it to be due in the majority of cases to anæmia, general debility, and mental anxiety,

PROFESSIONAL EXPERT EVIDENCE.

DR. JOHN H. PACKARD, of Philadelphia, made a motion that the following memorial and draft be sent to the State Legislature, after receiving the signature of all the officers and delegates of the Society:

"To the Honorable, the Senate and the House of Representatives of the Commonwealth of Pennsylvania. The undersigned, members of the medical profession, practising in this State, respectfully ask the enactment by your honorable bodies of a law, a draft whereof is herewith submitted. We believe the operation of such law will be to promote the interest of citizens and the welfare of the Commonwealth."

"AN ACT TO EXTEND TO PHYSICIANS AND SURGEONS THE BENEFIT AND OBLIGATIONS OF THE LAW OF PRIVILEGED COMMUNICATIONS.

"*Be it enacted, etc.*, That no person duly authorized to practise physic or surgery shall be allowed, or compelled to disclose any information which he may have acquired in attending any patient in his professional character, and which information was necessary to enable him to prescribe for such patient as a physician, or to do any act for him as a surgeon. And your petitioners will ever pray, etc."

Adopted.

EXAMINATION OF THE USUAL SIGNS OF DISLOCATION OF THE HIP, AND AN INQUIRY INTO THE PROPER COURSE TO PURSUE WHEN THE DISLOCATION IS COMPLICATED WITH FRACTURE.

DR. OSCAR H. ALLIS, of Philadelphia, began his remarks by an examination of the usual signs of dislocation of the head of the femur. Those he took up one after the other, and demonstrated how they could be so modified as to mislead in finding the true diagnosis. "If then," said the speaker, "the signs of dislocation can vary so greatly, how great must, of necessity, be our embarrassment when fracture of the pelvis, fracture of the neck of the femur, synovitis, etc., step in to complicate the matter."

He then spoke of dislocation when complicated with fracture of the shaft, pointing out the peculiarity of a force which could first dislocate and then fracture, for he urged that those injuries could never be simultaneous. When the fracture is in the upper part of the shaft, then the dislocation had occurred first, but when the fracture occured low down in the shaft, it would be impossible for a dislocation to occur.

In regard to the treatment, he said that he would, upon purely theoretical grounds, adapt the lower fragment to the upper, *i. e.*, if the head lay upon the dorsum ilii, he would direct the lower part of the limb across the sound one, rotating the foot inward. His remarks were profusely illustrated by chalk sketches on the blackboard.

TREASURER'S REPORT.

DR. LEE submitted his report showing that there was a balance in the treasury of $1,067.20. After being audited by a committee appointed by the chair, the report was approved.

THE EXTERNAL TREATMENT OF SKIN DISEASES.

DR. JOHN V. SHOEMAKER, of Philadelphia, read a paper upon the above subject. He began with a description of the numerous external agents of value in the treatment of diseases of the skin. He pointed out that hard water would be found to irritate sensitive cutaneous surfaces, while sea-water actually stimulated the skin. He spoke of the chemical action of soap, and said that medicated soap, prepared with bran, oatmeal, and borax, was decidedly beneficial. He then proceeded to discuss the use of the oleates in the treatment of diseases of the skin, as proposed by Mr. Jno. Marshall, of England. Oleic acid possessed solvent powers more active than most bases of ointments, and consequently the chemical combinations so formed were more potent when applied to the skin. Dr. Shoemaker closed with a reference to his own investigations and the combinations he had suggested, including the oleates of lead and bismuth, and described their properties and results.

The paper was referred to the Committee on Publication.

A REPORT ON THE EXAMINATION OF RAILROAD EMPLOYEES FOR COLOR BLINDNESS.

DR. PETER D. KEYSER, of Philadelphia, surgeon to Wills' Eye Hospital in that city, read a paper of particular interest, giving the result of a careful examination of the train hands on the various railroads having their terminus in Philadelphia, with regard to color blindness. He found three and one-half per cent. color blind—that is, three and one-half per cent. of the whole number who mistook colors one for the other, and eight and one-half per cent. additional, who, although able to distinguish the colors, were unable to tell the shades, *i. e.*, who shaded badly, thus making twelve per cent. of those examined who are not quick and sharp in noticing and distinguishing colors and shades. The three and one-half per cent. had visual defects of such a character as to make them really incapable and unsafe to fill the positions which they occupied. The speaker's attention was mainly attracted to two peculiarities. One was the fact that two men, who could not distinguish red from green on test, had educated themselves to know that red was an intense color, and were thus able to distinguish bright red signals, but at the same time bright green and other bright colors were red to them. For those they said that they would stop the trains, thus being on the safe side and never having an accident to occur to them. But dark green they called a deep, or dull color, and dark red, dark green, and brown were all green to them, and they would pass them by as all right on the road, thus causing them to be unreliable in their positions. The other peculiarity was the power of distinguishing bright red when held within three feet of the eyes, while at ten, twenty, and thirty feet, it was invariably called green. In sorting the wools, bright red and light green he picked out together for red. In that case the acuity of vision was normal.

The paper was accepted and referred to the Committeee on Publication.

The Society then adjourned.

In the evening a reception was tendered to the visiting delegates by the Delaware County Medical Society, at Holly Tree Hall, from 8.30 to 12 P.M.

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FRIDAY, MAY 23D—THIRD DAY—FINAL SESSION.

The delegation left Chester by a special train at 8.30 A.M., for the Institution for Feeble-minded Children, at Media, where the closing session was held.

The Society was called to order in the main hall of the institution at 9 A.M., by President Stewart.

*Appointments.*

The following gentlemen were appointed to prepare papers to be read at the next annual meeting:

*Address on Medicine*, Dr. Thomas W. Shaw, of Pittsburg.

*Address in Obstetrics*, Dr. J. T. Carpenter, of Pottsville.

*Address in Surgery*, Dr. John H. Packard, of Philadelphia.

*Address on Mental Disorders*, Dr. Isaac N. Kerlin, of Media.

*Address in Hygiene*, Dr. Benjamin Lee, of Philadelphia.

A letter was then read from Dr. James A. Reed, of Allegheny County, saying that he had been prevented by illness from writing the address on mental disorders for the current year.

REPORT ON STATE BOARD OF HEALTH.

Dr. Benjamin Lee, of Philadelphia, read the report, which stated that the committee had addressed a memorial to the Legislature, urging the passage of the bill reported by the State Society, and that they had personally visited Harrisburg for the purpose of impressing upon the members of the Legislature the great importance of the measure. In the meantime another bill, on the same subject, had been introduced into the Senate, which the committee supported as amended at their suggestion. One of the valuable features in the bill which had passed the Senate and was now pending a second reading in the House, was that it introduces county boards of health. The doctor also stated that the act had reached a further stage than any previous one for the same purpose.

The report was received and the committee continued until the final action on the bill was decided.

NOCTURNAL EPILEPSY.

Dr. John Curwen, of Harrisburg, read a paper on this subject, translated from a French work, which was referred to the Committee on Publication.

HOMES FOR INEBRIATES.

Dr. Joseph Parrish, of Burlington, delivered a very interesting address upon this subject, and reviewed the various systems in this country and Europe. It was referred to the Committee on Publication.

A recess was then taken in order to give an opportunity to Dr. Kerlin, the Superintendent of the Institution to introduce the inmates on the stage. This was done, and the classes went through gymnastic exercises. Dr. Kerlin then made a few remarks and introduced Dr. Seguin, Sr., to the society. Dr. Seguin spoke on the subject of Kindergartens.

METHODS OF EXCISING THE UPPER JAW FOR CANCER.

Dr. William H. Pancoast, of Philadelphia, spoke at some length on this subject.

ADDRESS OF THE RETIRING PRESIDENT.

Dr. Stewart, in retiring, thanked the Society for the kindness and courtesy extended to him while in the President's chair.

ADDRESS OF THE PRESIDENT ELECT.

Dr. Stewart then introduced Dr. Andrew Nebinger, of Philadelphia, the President elect, who thanked the Society for the honor it had conferred upon him, congratulated the members upon the prevailing harmony and good fellowship, and asked their support in the discharge of his duties.

Resolutions were then adopted endorsing the Pennsylvania Institution for Feeble-minded Children, recognizing the ability of the Superintendent, Dr. Isaac Kerlin, and thanking that gentleman and the Board of Managers for their courtesy.

The resolutions were seconded warmly by Drs. Stewart, of Erie, Ellwood Harvey, of Chester, and Nebinger and Shoemaker, of Philadelphia. The Society then adjourned, to meet at Altoona on the third Wednesday of May, 1880. At the conclusion of the meeting the members of the Society were entertained by Dr. Kerlin.

On Saturday morning, at the invitation of the officers of the Camden and Atlantic Railroad, the delegates made an excursion to Atlantic City.

# Correspondence.

## KENTUCKY THE FIRST STATE OF THE UNION IN WHICH ANÆSTHESIA WAS EMPLOYED IN THE OPERATION OF OVARIOTOMY.

To the Editor of The Medical Record.

Dear Sir:—From reading the various interesting reports of the proceedings of the State Medical Society of Kentucky, which met at Danville, May 13th, to erect a monument to the memory of Ephraim McDowell, the first ovariotomist, I find no mention or allusion, not even in the masterly oration of Dr. Gross on the occasion, to a somewhat important event in the Kentucky history of this operation. I refer to the first employment of anæsthesia, which has contributed so largely, not only in our own country, but throughout the civilized world, towards perfecting the operation of ovariotomy, and leading to the brilliant results now embalmed in the hearts of hundreds of living women who would to-day be in their graves had it not been for the inestimable advantages of this agent. In a conversation last evening with my friend Dr. L. A. Sayre, President-elect of the American Medical Association, who was present at the Danville ceremonies, he informed me that no allusion was made by any one, on the occasion, to the circumstance of Kentucky being the first State to lead off in this operation with the use of anæsthetics; and this is my reason for trespassing on your kindness for a corner in your columns to present a few facts bearing upon the subject.

In October, 1846, sulphuric ether, or letheon, as then called, was first employed as a pain-destroyer in a surgical operation by Dr. Warren, of Boston. Only one operation of ovariotomy in this country was performed during this year, which was by Dr. John L. Atlee, before the date above given. In 1847 Dr. Robert Thompson performed the only operation for that year; but no mention is made of the fact that letheon was employed. Both operations unsuccessful. In November, 1847, Prof. Simpson, of Edinburgh, employed, for the first time, chloroform as an anæsthetic. On March 15, 1848, Dr. Clay, of Manchester, England, performed his first ovariotomy under the influence of chloroform—successful. On March 21st, six days afterwards, Mr. H. G. Potter, of Newcastle, performed a similar operation under the influence of chloroform—unsuccessful. On April 6th, sixteen days later, Dr. Henry Miller, of Louisville, Ky., performed in that city ovariotomy under the influence of chloroform, upon a woman from the State of Indiana—successful—second case in the world under anæsthesia. During this year there were three other ovariotomies performed in this country, though they were after Dr. Miller's. Only one of the three successful.

Now, owing to the shortness of the time between Dr. Clay's operation and that of Dr. Miller—twenty-

two days—and the great distance, with the Atlantic intervening, it was not possible at that date that there could have been any communication between these two surgeons as to the advantages to be derived from anæsthesia in the operation; and the inference is, that the latter acted entirely upon his own judgment in deciding to employ the agent, which had not been done before in this country.

Kentucky, therefore, in weaving her chaplet of laurels from the justly great operation inaugurated by the bold and fearless hand of McDowell, might have added to it also the one of Prof. Henry Miller, who, to say the least of him, was among the ablest contributors to the revival of the operation, and, as such, his memory is deserving of the highest recognition. The teachings of this able and good man still have a strong hold on the affections of his numerous pupils scattered throughout our broad country; and, as one of the number, I insist upon his claim to originality and superior judgment, as being the first to employ in his own country anæsthesia in the operation of ovariotomy.

The failure of Dr. Gross to mention the name of Prof. Miller in this connection, in his otherwise able and just review of the labors of other cultivators of the operation of ovariotomy since it was given to the world by Dr. McDowell, was due, no doubt, to an oversight of the dates above given, and not from any disposition to be unjust, as everybody knows.

The writer, at the time of Prof. Miller's operation, was a private pupil of Dr. Gross, and had been in the habit, almost daily, of administering for him chloroform in his operations; and it was from this circumstance that Prof. Miller invited him to give the anæsthetic to the patient in question, to which incident in the American history of ovariotomy he refers here with no little pride.

Very truly yours,

NATHAN BOZEMAN.

296 FIFTH AVENUE, May 27, 1879.

## A REPLY TO "NONNE."

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In your journal for May 3, 1879, appeared a letter, signed "Nonne," which directed the attention of the Committee of Ethics for the Medical Society of the County of New York, to certain alleged irregularities, and expressed the query, "Is that Committee dead?" etc. The Committee has waited patiently until the present date for either "Nonne," or any one who may feel himself seriously aggrieved, to prefer charges against any offender, and if needs be to instruct them how to act upon the question. The Committee is alive and prepared to do their duty, their whole duty, and nothing but their duty. Now that "Nonne" has not appeared, the Committee is willing to say that they are fully impressed with the belief that when a work is published, be it medical or otherwise, it becomes the property of the public, and as such, is subject to criticism by the press. If the editor is fortunate enough to gain a favorable report for his journal or his book, we do not consider him a subject of discipline by the Committee on Ethics.

If "Nonne," however, will present charges against the gentleman in question, and is prepared to substantiate the same, he will find the Committee on Ethics ready conscientiously to do their legitimate work.

"Nonne" has a right to his own views on this subject most assuredly, and if he desires to know whether a committee that has always endeavored to discharge its duty, is dead or living, let him prefer charges over his own signature, and a satisfactory answer can be immediately given.

Yours respectfully,

R. A. BARRY, M.D.,
*Chairman Committee Ethics.*

June 2, 1879.

# Obituary.

## JACOB A. WOOD, M.D.,

DIED at his residence, 45 Lafayette Place, New York city, on the 21st of March, 1879. His death was caused by organic disease of the heart, from which he had suffered for some time.

Dr. Wood was born in Hancock, N. H., May 10, 1810. He studied medicine with Dr. Twitchell, of Keene, N. H., and received his diploma from the Vermont Medical College (Woodstock).

After graduating, he practised for a few years in his native town. Subsequently he went to Boston, and while there began to give special attention to the treatment of Pott's disease. His reputation in that department soon became widely extended. He came to New York in 1858, since which time his brace has become quite generally known.

Dr. Wood was unpretending, and was eminently successful in his profession. He was a devoted friend and a true gentleman, and died greatly mourned by all who knew him well. At about the time of his death he was elected to membership in the Medical Society of the County of New York.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from May 25 to May 31, 1879.*

Surgeons C. T. ALEXANDER and D. L. HUNTINGTON, and Asst. Surgeon H. LIPPINCOTT, appointed a board to assemble June 2d inst., at Military Academy, West Point, N. Y., for examination of physical qualifications of members of graduating class and of candidates for admission to Military Academy. S. O. 122, A. G. O., May 23, 1879.

STORROW, S. A., Major and Surgeon, relieved from duty at Fort Laramie, and assigned to duty as Post-Surgeon at Fort D. A. Russell, Wyoming Ter., relieving Major J. R. Gibson, Surgeon. S. O. 45, Dept. of the Platte, May 26, 1879.

O'REILLY, R. M., Capt. and Asst. Surgeon, McPherson Barracks, Atlanta, Ga. Granted leave of absence for one month, with permission to apply for an extension of one month. S. O. 84, Dept. of the South, May 28, 1879.

DE WITT, C., Capt. and Asst. Surgeon. Relieved from duty at Fort Fred. Steele, Wyoming Ter., and assigned to duty as Post-Surgeon at Fort Sidney, Nebraska, relieving Capt. C. E. Munn, Asst. Surgeon. S. O. 45, C. S., Dept. of the Platte.

LA GARDE, L. A., 1st Lieut. and Asst. Surgeon. Having reported in person at these headquarters pursuant to orders from Headquarters of the Army, assigned to duty at Cantonment on North Fork of Canadian River, Indian Ter. S. O. 101, Dept. of the Missouri, May 23, 1879.

# Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending May 31, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| May 24, 1879. | 0 | 4 | 111 | 3 | 39 | 26 | 2 | 0 |
| May 31, 1879. | 0 | 2 | 112 | 8 | 40 | 24 | 2 | 0 |

JOHN TAYLOR CROOK, M.D.—At a meeting of the San Francisco Medical Benevolent Society, held May 21, 1879, the death of Dr. John T. Crook, late Secretary of the Society, was announced, and the following resolutions adopted:

*Whereas*, It has pleased our Heavenly Father to remove from among us, by death, our friend and fellow-member, John Taylor Crook, M.D., late Secretary of this Society; be it

*Resolved*, That we desire, as individuals and as a Society, to place on record our appreciation of the life and character of our deceased brother; that we call to mind with gratitude his labors as an officer of our association, and our regret at his untimely death.

*Resolved*, That our heartfelt sympathy is hereby tendered to the bereaved father and sister, as well as to the orphaned children, too young to fully appreciate their loss.

*Resolved*, That these resolutions be spread upon the minutes, and a copy of the same sent to the father of our deceased member. Also that they be published in the *Western Lancet* and the New York MEDICAL RECORD.

BENJAMIN R. SWANS, M.D.,
GEORGE H. POWERS, M.D.,
A. F. SAWYER, M.D., } *Committee.*

Attest: A.M. Wilder, M.D., *Secretary.*

ARKANSAS STATE MEDICAL SOCIETY.—STATE BOARD OF HEALTH.—At the Annual Meeting of the Arkansas State Medical Society, held at Little Rock, May 14 and 15, 1879, the portion of the President's address referring to a State Board of Health was referred to a committee, consisting of Drs. J. M. Keller, P. O. Hooper, W. B. Welch, D. A. Linthicum, and E. T. Dale. After careful consideration, the committee reported the following resolutions:

*Resolved*, That the President of the Society appoint nine members of the same, who shall act in the capacity of a State Board of Health as far as practicable, and under the sanction and co-operation of the State government.

*Resolved*, That said committee or State Board of Health shall organize by the election of a president and secretary, and shall endeavor to secure membership in the Mississippi Valley Inter-State Sanitary Commission on the same footing as the State Boards of Health.

Pursuant to the foregoing resolutions, the President appointed as said board Drs. E. R. Du Val, Fort Smith; J. B. Cummings, Forest City: W. M. Lawrence, Batesville; E. T. Dale, Texarkana; D. A. Linthicum, Helena; J. A. Dibrell, Jr., Little Rock; A. L. Breysacher, Little Rock; J. T. Hamilton, Pine Bluff; and L. P. Gibson, Little Rock.

On motion of Dr. Welsh, the President, Dr. A. A. Horner, was added to the State Board of Health.

The committee, representing a State Board of Health, immediately organized by the election of Dr. A. L. Breysacher, President, and Dr. J. A. Dibrell, Secretary.

PHILADELPHIA ACADEMY OF SURGERY.—A movement has been for some time past in progress among the well-known surgeons of Philadelphia, such as Professors S. D. Gross, D. Hayes Agnew, and Jno. Ashhurst, Jr., looking towards the foundation of a society for the reading of papers on, and discussion of, surgical matters. After several informal meetings at one another's houses, it has been decided to hold a business meeting early in June, at which a constitution may be drawn up and officers elected. It is proposed to put the "Academy of Surgery" on a similar footing with the "College of Physicians" of Philadelphia. The project has our best hopes for its ultimate success.

PRELIMINARY MEDICAL EXAMINATIONS IN THE UNIVERSITY OF PENNSYLVANIA.—The last edition of The Catalogue of the Medical Department, that for May, 1879, contains the following interesting announcement: *For entrance at the coming session* (1879–80) *no preliminary examination will be required, but in th fall of* 1880 (*session of* 1880–81) *a preliminary examination will be instituted, which every candidate, who has not previously received a collegiate degree, must pass.* The applicant will be required: *first*, to write a brief essay, not exceeding a page of foolscap, which will serve as a test of his qualifications in orthography and grammar; *second*, to undergo an examination in the elementary principles of physics, as contained in Fownes's Chemistry; *third*, to pass an examination in easy Latin prose translation (*First Book of Cæsar's Commentaries*). In lieu of Latin, any language other than English may be substituted.

THE second series of the Mütter Foundation Lectures for 1879 (surgical pathology) is now in course of delivery at the Philadelphia College of Physicians. The lecturer, Dr. Samuel W. Gross, delivered the first two lectures on Tuesday and Friday evenings, May 27th and 30th. The last two will be delivered on June 3d and 6th. The subject of this second course is: The Histology, Genesis, Pathology, Differential Diagnosis, and Treatment of Fibromas, Sarcomas, Myxomas, Adenomas, and Carcinomas of the Breast. The entire series, first and second (ten lectures in all), will be published in the form of a monograph at an early date by the author.

INHALATIONS IN THE TREATMENT OF PULMONARY DISEASES.—In that form and stage of chronic bronchitis characterized by an excessive purulent or mucopurulent expectoration, an inhalation of steam impregnated with the vapor of carbolic acid and camph. tincture of opium will be found to afford prompt relief to all of the immediate symptoms, the carbolic acid acting as an antiseptic, while the moist warmth and the opiates allay local irritation and the resulting cough. The formula which I am in the habit of using is as follows:

℞. Acid carbolic, cryst..... grs. xxx.
Tr. opii et camph. ..... ʒ iij.

M. Sig.: One teaspoonful in half a pint of hot water, to inhale as directed.

Another stage of chronic bronchitis is distinguished

by a harsh, hard, irritative cough, and little or no expectoration. Such portions of the respiratory mucous membrane as can be brought within view present a pale, anæmic, and dry shrivelled appearance. Here we require, locally, a combination calculated to stimulate free capillary circulation and secretion, and also to exert the soothing anodyne influence necessary to control cough. For this purpose we have found the following combination to answer exceedingly well:

℞. Oil of Scotch pine..... ʒ j.
Camph. tinct. of opium..... ʒ iij.
M. Sig.: One teaspoonful in half a pint of hot water, to inhale as before.

For the oil of Scotch pine almost any of the oleoresin, balsamic preparations may be substituted.—F. H. Devis, M.D., Chicago, Ill., in *Detroit Lancet*, May, 1879.

College of Physicians and Surgeons.—The changes in the Faculty at the College of Physicians and Surgeons, Med. Dept. of Columbia College, are as follows: Dr. Henry B. Sands has been associated with Dr. Thomas M. Markoe in the chair of Surgery, Dr. Markoe assuming the title of Professor of the Principles of Surgery, and Dr. Sands assuming the title of Professor of the Practice of Surgery. Drs. T. Gaillard Thomas and James W. McLane, lately styled Professor and Adjunct Professor, respectively, of Obstetrics and the Diseases of Women and Children, have assumed the titles—Dr. Thomas, of Professor of Gynæcology, and Dr. McLane of Professor of Obstetrics and the Diseases of Children. Dr. Thomas T. Sabine, lately Adjunct Professor of Anatomy, has been appointed Professor of Anatomy, vice Dr. H. B. Sands, resigned; and Dr. William T. Bull has been appointed Assistant Demonstrator of Anatomy, vice Dr. Charles Kelsey, resigned.

Cerebro-spinal Meningitis.—Dr. J. H. Strangher, of Lexington, Mo., writes that Dr. Lee Alexander, of Marshall, Mo., treated cerebro-spinal meningitis as follows, with great success: Resolved to try something, as all previous plans had proved unavailing, the patient's body was entirely anointed with oil of turpentine; and then, with the exception of the head, to which ice was applied, he was immersed in a barrel of water as hot as could be borne by the hand. The bath was continued for fifteen minutes, and repeated every hour until relief came to the patient, which was usually so marked that for the second bath it became necessary to arouse him. The tetanic symptoms were usually relieved by the first immersion, and subsequently the bath was called for by the patient. The internal treatment consisted of turpentine in 15–25 drop doses, bromide of potassium 15–20 grain doses, gelsemium, beginning with doses of 8 to 10 drops, and increasing until double vision occurred, and blister to the nape of the neck. He claims twenty-two recoveries out of twenty-three cases. The only untoward symptom developed during treatment was epistaxis in a child two years old, which subsided as soon as the gelsemium was discontinued, it having resisted all the usual remedies.

The Use of Calcium Sulphide in the Treatment of Inflammations of the External Auditory Meatus.—Dr. Samuel Sexton, in a paper published in the January (1879) number of the *American Journal of Otology*, gives his own observations on the use of this drug in the painful affections alluded to. Dr. Sexton states that in furuncular inflammation of the meatus the sulphide can be used to advantage when suppuration threatens, or even after it has occurred. He has frequently observed furuncles, under the use of this remedy, to abort and dry up without discharge of pus. In some instances he relies entirely on the remedy in the treatment of inflammation of the ear. The prevention of a continuance or a return of furuncles, etc., by this remedy he regards as very clearly possible, provided no remote cause be left. The dose which Dr. Sexton has found most available is one-tenth of a grain, to be given every two or three hours in urgent cases. In cases with a tendency to chronicity, with less frequency. In children the dose should be less; an adult dose being diffused in water, the amount given can be easily graduated. The medicine is more agreeable when triturated with sugar of milk, when it may be given dry on the tongue.

Dentists in Holland.—Up to the present time only physicians provided with diplomas have been allowed to exercise the art of dentistry in Holland, but a law was recently passed which does away with this excessive restriction, while it at the same time secures sufficient guarantees for the public safety. The aspirants for the diploma of dentist, under the new law, must pass a special examination in the anatomy and physiology of the teeth, gums, and alveolar processes, on the local remedies in use for diseases of the teeth, and in operative dentistry and the preparation of false teeth. The illegal exercise of the art of dentistry is punished by a fine of from $12.50 to $50.00, and imprisonment for one to six months. These penalties will also be inflicted on any dentists who employ anæsthetics, such as chloroform and nitrous oxide, or who prescribe internal remedies, as well as on those who attempt to sell any drugs, except ordinary dentifrices.

The Massachusetts State Medical Society holds its annual meeting in Horticultural Hall, Boston, June 10th and 11th.

The Maine State Medical Society holds its annual meeting in the city of Portland, beginning June 10th.

## BOOKS RECEIVED.

Handbook of Diagnosis and Treatment of Diseases of the Throat and Nasal Cavities. By Carl Seiler, M.D. Philadelphia: Henry C. Lea. 1879.

Atlas of Histology. By Klein & Smith. Part III. Philadelphia: J. B. Lippincott & Co.; London: Smith, Elder & Co., 1879.

Guide to Therapeutics and Materia Medica. By Robert Farquharson, M.D., Edin., F.R.C.P., Lon. Adapted to the U.S. Pharmacopœia, by Frank Woodbury, M.D. Philadelphia: Henry C. Lea, 1879.

Lectures on Syphilis of the Larynx. By W. MacNeill Whistler, M.D., M.R.C.P. London: J. & A. Churchill, New Burlington Street, 1879.

Transactions of the American Gynæcological Society. Vol. iii., for the year 1878. Boston: Houghton, Osgood & Co.; the Riverside Press, Cambridge. 1879.

The Laws of Therapeutics; or, the Science and Art of Medicine. By Joseph Kidd, M.D. Philadelphia: Lindsay & Blakiston, 1879.

Ophthalmic Out-patient Practice. By Charles Higgins, F.R.C.S. Second Edition. Philadelphia: Lindsay & Blakiston, 1879.

Hearing and How to Keep it. By Charles H. Burnett, M.D. Philadelphia: Lindsay & Blakiston. 1879.

Diseases of the Rectum. By William Allingham, F.R.C.S., London. Third Edition. Partly rewritten. Philadelphia: Lindsay & Blakiston, 1879.

# Original Lectures.

## ADULT CHOREA—SYPHILITIC BRAIN DISEASE—BRAIN TUMOR.

A Clinical Lecture Delivered at Charity Hospital,

By A. McLANE HAMILTON, M.D.,

VISITING PHYSICIAN TO THE HOSPITAL FOR EPILEPTICS AND PARALYTICS.

### Lecture IV.

(Reported for The Medical Record.)

Gentlemen:—The contortions and grimaces displayed by the woman before you are certainly suggestive of an intensely dramatic and eccentric nervous disease, and among the disorders of motility, chorea occupies a prominent and interesting place. Our first patient is a middle-aged woman who, eight or ten years ago, and without any special cause, unless mental excitement and previous grief may be assigned as such, developed a disease which is rare in adults, but very common in infancy.

She has been under observation for the last six or seven years, and during that time her disease has undergone various modifications. At one time the movements were completely extinguished and recovery was supposed to have taken place. She now has peculiar contortions of the face, shown mostly about the mouth, which is puckered spasmodically, and she seems to forcibly smack her lips. On account of this embarrassment of movement she is entirely unable to talk, stammering and spasmodically uttering her words in a manner almost unintelligible. Her right arm, you will notice, is moved in irregular way, there being present a condition which is symptomatized by clonic spasms. Her right hand is swayed backward and forward, the movements of flexion being much more marked and decided than those of extention.

There is considerable loss of power on the right side, but there is no disturbance of sensation. Her general health is apparently unaffected.

On auscultation no cardiac murmur can be detected; such murmurs, as you already know, being very commonly present in cases of infantile chorea. This case differs in many respects from chorea ordinarily seen in general practice. Adult chorea, beginning late in life, is quite rare, and differs very decidedly in its pathology from that of early life. In childhood there is a superabundance of nerve-force, which, as a rule, in the normal state, finds expression in muscular movements connected with emotional exhilaration within moderate limits. But if there be slight departure from the normal condition to a state of irritability of the nervous centres, such irritability is attended by uneven discharge of nerve-force, and a pathological condition of motility often grows insensibly out of what may have been in the beginning simply a physiological one. In the chorea, then, which occurs after the age of twenty, unless the disease be hysterical or epidemic, we should always suspect the presence of organic nervous disease, especially of the cortex cerebri.

It was only a few weeks ago that a woman, who was well known to many of the visitors of the hospital, died after being affected with the disease for twenty or thirty years. Her movements were somewhat like those presented in the patient before you, but much more violent. Her arms were forcibly extended, her fingers were interlocked, her body was bent over, her head was agitated chiefly by the muscles of the anterior part of the neck. While she was kept in a state of constant agitation, her fingers were interlocked, she threw her arms about violently, doing injury to herself and to those about her. Treatment had been of no effect whatever, and, from a condition of apparent general health and fair intelligence, she descended until she became completely demented. After death, the convolutions on either side of the fissure of Rolando were found to be atrophied and the seat of sclerosis, while spots of sclerosis were scattered through the motor tract of the entire brain. In most of these cases such cortical changes will probably be found.

Another class of rare cases of chorea are those connected with pregnancy, and here the disease usually disappears before parturition. Jaccoud considers this form of chorea to be an unusually grave one, but such has not been my experience. In several cases that have come under my observation, the women have gone to full term and given birth to healthy children.

It is rare for the chorea of infancy to continue after the twentieth or twenty-fifth year. A few such cases may be seen, but when they are encountered, I am convinced that the disease is not the ordinary form which occurs among children, but rather one of a symptomatic nature.

Sometimes you will find a variety of chorea which appears in girls at about the time of puberty. It is decidedly hysterical in character, is associated with menstrual disorder, ovarian tenderness, and decided emotional disturbances. Under appropriate treatment it disappears in a very short time, and rarely recurs, though in some of the extraordinary cases reported by Continental writers, chorea may be a feature of hystero-epilepsy. The form of which I spoke in a previous lecture is interesting in a diagnostic point of view, but confusion need but rarely occur, as it is always preceded by hemiplegia or some form of paralytic seizure.

In this case, arsenic, strychnia, and more lately the dracontium, as recommended by Wood, have been given with no good results whatever, but from the persistence of her symptoms, I am convinced the condition has long passed the stage which might be called functional disturbance.

### SYPHILITIC BRAIN DISEASE.

Here, gentlemen, is a patient who has just entered the hospital. She is probably between fifty and sixty years of age. It is impossible to get from her any history, as her mind, evidently, is decidedly impaired, and she appears stupid and dazed by her new surroundings. Let us examine her motility. You will observe that there is right facial paralysis; that the left corner of her mouth is drawn up; and that her tongue, when protruded, points to the right side. You will also notice that her pupils are unequally dilated, the right being very much smaller than the left; in fact, the right pupil is unusually small.

Her left side, you will observe, is the seat of hemiplegia which is not very profound, but it is probably of long standing, for there is rigid flexion of the forearm, and decided rigidity and tension of the tendon of the biceps, showing that secondary degeneration has taken place. As we examine the right side we also find that it, to a certain degree, is rigid, and the tendon reflex may be very easily produced. In fact, the tendon reflex is pretty generally exaggerated, for when Dr. Claddek strikes any of the tendons there is a violent movement. This has been found to exist

in hemiplegic cases most markedly upon the paralyzed side. In this patient it exists to some degree upon both sides, showing that the lesion is either a double one or affects some locality producing bilateral trouble.

When she attempts to answer my questions it is to be noticed that her speech is decidedly affected, the labials being badly pronounced. As a cause for this, you will observe that there is some ataxia, especially in the movements of the lips. No history has come with her, consequently it will be necessary for us to carefully examine for any indications of a predisposing cause. They are present. Upon the left side of her head there is a bald spot, the result of alopecia areata. As we examine the skin we find cicatrices, some of them over the back and the breast, but the greater number upon the anterior aspect of the legs. Irregular elevations along the course of the tibiæ suggest the existence of nodes. There is, therefore, but little need of searching farther for the probable cause of the condition from which she is suffering. Her trouble, doubtless, has a syphilitic origin. Our suspicions are strengthened very much by the appearance and the grouping of the symptoms. Irregular paralysis, headache, unequal dilatation of the pupils, ataxic speech, and the chronicity of the attack, all go to confirm the diagnosis.

You will find in practice that irregular paralysis of the cranial nerves, mental decay of the kind found in this case, and rapidity in the expression of symptoms, usually point to syphilitic neuroses.

From the peculiar speech involvement, the bilateral trouble, and the uneven contraction of the pupils, it is probable that there is a lesion at the posterior and basal part of the brain as well as others more anteriorly. The condition of the patient's mind is very suggestive of cortical disease, the vertical gray matter often being affected in brain syphilis.

We shall first endeavor to improve the patient's general condition, for she has evidently been neglected. After this I shall administer the "mixed treatment," which is better than any other in these cases.

Now, here is another case of syphilitic disease of the brain, which is very interesting. It is a case of alternating hemiplegia, the patient having had attacks of hemiplegia at different times on both sides, there being a slow development of the paralysis and some amelioration before the occurrence of the second attack. In this case there is aphonia, apparently of central origin, but there is no local ulceration of the vocal cord. It has improved somewhat under specific treatment, as has her paralysis, which you see is irregular. This woman's eyes present the evidences of old iritis, which it is not difficult to detect in such patients.

The peculiarity of all of these cases is, that the symptoms are very likely to undergo a remarkably rapid alteration in character. Spontaneous changes seem to occur, and are undoubtedly due to deposits which are partially absorbed, or endoarteritis of irregular course. As a rule, syphilis attacks the dura mater and convexity of the brain, and is in nine cases out of ten the cause of the monoplegias; and is rarely unaccompanied by mental decay. In both of these patients the cerebral syphilis did not appear until eight or ten years after the primary sore. Fournier fixes the limit for the development of brain syphilis between the third and twenty-eighth years after infection, but I think symptoms of cerebral trouble are very rarely expressed until after at least eight or ten years. If the patient be not taken in hand at once the prognosis is bad, and I have found that in proportion to the degree of mental trouble, so will the unfavorable character of the prognosis depend.

### BRAIN TUMOR.

The next patient I will present is one of a kind which puzzles the neurologist more than almost any other, and diagnosis is certainly always difficult, and sometimes impossible. She is, as you see, a middle-aged woman, and the chief features of her case are convulsions of an epileptic character, a certain amount of muscular weakness in the lower extremities, occasional variations of hyperæsthesia, and double optic neuritis. These symptoms were manifested slowly; convulsions appearing first. Soon after their onset she began to suffer from loss of vision, and for the last three years she has been entirely blind. When her eyes were examined with the ophthalmoscope it was found that marked retinal change had taken place. The veins were distended and irregular in their course, while the optic discs had lost their character, had changed in color, becoming pale, while at certain points the evidence of hemorrhage is very perceptible. This woman's pupils undergo decided variation in size, but they are usually widely dilated. She complains of intense headache, more severe upon the left than upon the right side, and she suffers quite frequently from distressing vertigo. Her taste and smell are very decidedly impaired, and although ammonia produces lachrymation, it does not always cause distress. She cannot distinguish pepper, although she feels the prickling on the tongue after its application. She is deaf in the right ear. Her convulsions are not so frequent as they formerly were. They have sometimes occurred without loss of consciousness, and are always decidedly irregular in character. From all the evidences in this case, from the optic neuritis, which may, but rarely does occur from upper brain tumors, from the deafness, and from the staggering gait, it is very probable that she is suffering from a tumor which is situated at the base of the brain. The convulsions, the optic neuritis, the headache, the cranial nerve paralysis, and one other symptom from which our patient has not suffered, namely, cerebral vomiting—all point very strongly to tumor of the brain, although it is somewhat difficult to make out its exact location. According to the recent investigation of Ferrier and others, loss of smell and hearing follow destruction of the temporo-sphenoidal convolutions, and it is very probable that such is the situation of the lesion in this case.

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ANTISEPTIC TREATMENT OF THE GENITAL CANAL IN WOMEN.—The following is Schucking's method of procedure: Immediately after delivery he wipes out the vagina with a tampon of cotton dipped in a five per cent. solution of carbolic acid; after this he carries up to the fundus of the uterus a uterine sound enveloped in gauze previously soaked in the same solution. Then, by means of an irrigator, which is connected with the uterine sound, the uterus and the vagina are thoroughly disinfected. He finally fills the irrigator with a solution containing 10 per cent. of the sulphite of soda, and 5 per cent. of glycerine; this is destined for permanent irrigation. Every twelve hours he removes the sound with the gauze enveloping it, and replaces it by another sound prepared in the same way. At the same time he repeats the carbolic acid injection, and follows it as before with the soda solution. The duration of the treatment varies according to the necessities of each particular case.—*Gazette Obstétricale.*

# Original Communications.

## NERVOUS DISEASES CONNECTED WITH THE MALE GENITAL FUNCTION.

By GEORGE M. BEARD, M.D.

(Continued from No. 4, page 73, January 25, 1879.)

### II.

### WHEN ARE INVOLUNTARY SEMINAL EMISSIONS PATHOLOGICAL?

That this question is one of great difficulty and of great importance in its relations to the nervous system, will be denied only by those who have not given it careful thought and study. The exhaustive and independent investigation of even a few cases of nervous disease, complicated with seminal emissions, suffices to prove the inadequacy of all attempts to solve the problem through any arithmetical formula; to say, as the authorities do, that an emission two or three times a week is physiological—that is neither a result or cause of disease—is to make a statement that is not supported by verifiable facts, for emissions even less frequent are certainly both the results and causes of nervous morbid symptoms, and are therefore as truly pathological as too frequent urination or defecation.

It may perhaps be possible to move in the direction of the truth on this subject, even if we do not quite reach it by the following analysis:

### INVOLUNTARY EMISSIONS ARE PATHOLOGICAL—THAT IS, CAUSES OR RESULTS OF DISEASE.

1st. When they are followed by headache, languor, depression, nervousness, and pain, local or general.

That such morbid nervous symptoms do result directly and solely from involuntary emissions, entirely independent of the fear or expectation of the patient, is as demonstrable as that such symptoms follow excessive physical or mental exertion; for all of these sufferers are not, as is currently supposed, and often stated, hypochondriacs; many of them are as calm and as philosophical as patients of any other class.

Hypochondria, although a very frequent accompaniment of these disorders, is not essential to them in all stages; and in some cases is not found at any stage.

Even in the married, these effects of involuntary emissions are noticed; and, besides other symptoms of nervous disease that happen to be present, are liable to be aggravated after occasional emissions. These nervous symptoms sometimes appear when the emissions are quite infrequent, while in other cases they are not observed when several discharges occur monthly. There can, indeed, be no mathematical law that will apply to all cases. What is physiological—that is, consistent with average health—neither a result or effect of disease—may be to another pathological; consequently, each case must be studied by itself. In some cases involuntary emission, like coitus, is followed by a feeling of relief and healthful sedation. One of my cases, long troubled with symptoms of sexual neurasthenia, is always very much better for several days after an emission, which occurs but occasionally.

2d. When, after long intervals, they occur several times a night, or a number of nights in succession.

Many of my cases have this experience; they may go for a week or for two weeks without any trouble, when, either with or without any exciting cause, a volley is discharged, and for a day, or several days, they are nervous, irritable, neurasthenic, or certain special symptoms—such as sweating of the hands, agoraphobia, and aching of the loins—are made worse.

This phenomenon is never physiological, any more than an attack of diarrhœa is physiological; it is both a result and a cause of morbid states, either local or general. It may not be of a serious or terrible character. It may be a condition that time and nature will cure; but it is none the less, so far as it goes, a disease.

3d. When the emissions are induced by slight reflex irritation, or, subjectively, by mind acting on body.

A patient now under my care for sexual debility had an emission while sitting in a barber's chair; the result of the friction attending the operation of shampooing the head. This man is not often troubled by emissions, although he has other signs of genital disorder; but in this instance the emission was certainly pathological, and could not have occurred in a perfectly healthy individual. Curling mentions a similar instance of emission following reflex irritation. In a case of facial spasm that I was treating by large doses of conium, in combination with electricity, two emissions occurred while riding in a street car. The patient was reading a paper, not thinking of himself or of sexual matters. He is a person of more than average vigor, and is married, and not accustomed to involuntary emissions. It is probable that the conium long continued had produced its physiological effects, relaxing the muscular system, and that the excitation produced by the jolting of the car was sufficient to act as an exciting cause. The conium was stopped, and he has not since been troubled.

In this line come those quite common cases where the discharge comes before intromission, from the mere touch or contact, or from the friction of the clothing. Phenomena of this kind occurring rarely or often—once a week or once a month—are pathological; just as incontinence of urine is pathological, and, like that condition, may require treatment.

It is a morbid symptom when mental influence alone, without any external irritation, direct or reflex, brings on an emission. A physician, who consulted me in regard to himself, observed, as one of the earlier indications, that something was wrong with the nervous system, that simply hearing by accident amatory conversation in an adjoining room brought on an emission. The same gentleman also noticed as another morbid symptom, that very trifling mental excitation caused a slight discharge from the penis—weeping of the prostatic and Cowper's gland fluids; and that this was an indication of nervous disease subsequent history established; for a degree of genital debility, together with general nervousness, made it necessary for him to seek advice and treatment, as a result of which the parts quickly improved in tone.

This gentleman, I may say, was of mature years, clear-headed, and in no sense imaginative, and of a very large professional experience—less likely than many others to observe wrongly in these matters.

This weeping of the penis on mental excitation is not of course true spermatorrhœa, as the laity suppose, but it is pathological, a sign of genital weakness, and may or may not be the precursor of more serious symptoms. A patient of mine was so annoyed by these diurnal discharges appearing after and on very slight excitement, as during a bath even, that I told him to save some of the fluid, and have it examined by the microscope. It was found that it con-

tained no semen, but the fluid of the prostate and Cowper's glands.

4th. When they accompany or follow acute or chronic disease, and disappear with the disease.

Spinal cord affections in certain irritative stages and various febrile maladies have involuntary seminal discharges as one of their results, which results cease or are modified by the disappearance of the cause. The discharges in such cases are not always very frequent, but they are pathological, not physiological..

5th. When they take place in connection with any of the stages of impotence, and even when there is opportunity for frequent intercourse.

Those in whom the emission is too early after introduction, or who cannot have coitus frequently, are often annoyed—whether married or unmarried—by these involuntary discharges. With increase of tone, both the emissions and the lack of genital power disappear.

Quite a large number of cases of emissions appearing in this way in the married have been under my care. Indeed, I have never seen worse cases than some of those who are married.

6th. When the emissions occur at stool—diurnal pollution; or flow out with the urine—true spermatorrhœa.

If the urine of patients complaining of sexual debility be carefully and frequently examined by experts with a microscope, it will be found that true spermatorrhœa,—real flowing away of the spermatozoa with the urine,—is more frequent than any of us have suspected. A single examination, however carefully made. is not sufficient to disprove the existence of true spermatorrhœa; for, like the other morbid ingredients of the urine, the spermatozoa and spermatic globules are not necessarily found in every examination in any patient in whom the disease exists.

They might be found after an erection or excitement of any kind, when at other times they would not appear. Thus, in one of my cases two examinations brought no evidence of spermatorrhœa, but one made after an erection, though not after an emission, demonstrated, beyond any question, the existence of the disease. The history and symptoms of the case were in entire harmony with this diagnosis. The details of the case, which are very remarkable, will be published subsequently. No one, probably, will claim that the existence of spermatozoa in the urine is normal, and if they are found even in one examination out of six, it would indicate a pathological state. It is certain that examinations made in the way here described prove the existence of this condition in quite a considerable proportion of patients of sexual exhaustion. In cases where emissions are not especially frequent; in cases even where they are quite rare, spermatozoa and spermatic globules are sometimes found. But they are never found—according to my experience—in persons who are otherwise healthy; they are always accompanied with some vice or with a number of the symptoms of sexual exhaustion; for example, palmar hyperidrosis, anthropophobia, or fear of society, or agoraphobia, asthenopia, atonic voice, or impotence in some one of its stages, pain and weakness in the dorsal or lumbar spine, spinal irritation, frequent micturition, oxaluria, mental depression. A recent authority on these subjects states in substance these two propositions: first, that true spermatorrhœa is rarely seen even by specialists; secondly, involuntary emissions occurring two or three times a week are not pathological. Neither of these propositions is quite correct. They are suggestions or adumbrations of the truth, rather than the truth itself. If the spermatozoa are not more frequently seen in the urine, it is partly because they are not more frequently looked for; and the frequency with which emissions occur is but one element, and that a minor one, in determining the question whether they are or are not pathological.

The facts here stated are so opposed to the almost unanimous teachings of all the writers upon these subjects, that it is proper to explain under what circumstances the examinations of the urine were made. In order to guard against the error which might come from the microscopist seeing what he expected to see, I sent the specimens of urine to Dr. Mittendorf, without giving him any information in regard to the patient. In the majority of cases he did not know what symptoms the patient had, or what sex, age, or condition the specimen represented.

Different forms of disease—kidney and bladder, and various phases of neurasthenia and other nervous diseases—were sent, at some times promiscuously; and it is an interesting illustration of the precision that this branch of science has attained, that with all the sources of error thus eliminated, no demonstrable mistake has ever been made.

But morbid emissions and true spermatorrhœa, though more frequent than is believed in the profession, are not always such terrible diseases as the laity believe; they are conditions that by proper management are relievable and curable.

These general principles are illustrated in the history of the following cases:

Case VII.—A young gentleman, 27 years of age, consulted me for seminal emissions, with various symptoms of nervous exhaustion associated. The emissions were not very frequent, sometimes not as often as one a week; sometimes two or three followed each other on successive nights.

The appearance of the gentleman would indicate pretty fair health, and yet there was, as is often found in cases of neurasthenia, a degree of insomnia and mental depression. There was no real hypochondria, no disposition to magnify, or, to any great extent, to worry. There was the usual history of masturbation in his youth, but it had not been carried to very great excess. There was also the very common symptom of sweating of the palms of the hands. His circulation was not entirely good. Here was evidently a pathological state, though not of the severest order. Although the emissions were not frequent, yet they came in such a way that they had both temporarily and permanently injurious effects, for he was always worse in the mornings after there had been the involuntary emission. There was true spermatorrhœa. The nervous sensitiveness of the patient was illustrated by the fact that there was a tendency to faint on the application of the faradic current of electricity. The galvanic current, which is usually more powerful, had no such effect. He was treated with central galvanization, general and local faradization. The localized faradization was used externally and internally; he was treated on the principle prescribed in the first series of this paper. The result in a few weeks was an entire cure, which, as I afterwards learned from the patient, was permanent.

The above case illustrates two points: *First*, involuntary emissions, even when pathological, are not necessarily accompanied by hypochondria; *secondly*, they can be controlled by treatment even when the patient remains unmarried. In some cases involuntary emissions have been cured by treatment, although the accompanying symptoms of nervous debility were unaffected.

The patient has occasional emissions now, but they are not sufficiently the cause or effects of disease to require treatment.

The noteworthy fact in this case was, that the improvement took place while the patient remained unmarried. The indiscriminate prescription of marriage for all such cases, and all cases of sexual exhaustion, is oftentimes impracticable, usually unnecessary, and sometimes unscientific. All or nearly all cases can be helped without resorting to marriage, while in some instances marriage is to be for a time deferred. The large number of cases of involuntary emissions and impotence in the married is the best of all arguments against urging marriage as a specific for all forms of genital weakness. Marriage is sometimes a good hygenic remedy for hysteria in women, as it is sometimes for sexual debility in men; but it is no more a specific for the one than for the other.

Case VIII.—A lad, 18 years of age, consulted me in the fall of 1878, for the following symptoms: Sweating hands (palmar hyperidrosis), dilated pupils, downcast eyes, anthropophobia or morbid fear of society, mental depression and a tendency to jerking of the limbs, not only at night, but even when sitting or standing. Even when sitting in the office while being treated, his feet would involuntarily move up and down. There was also the redundant prepuce, but not real phimosis. There was the almost invariable history of masturbation, begun at the age of thirteen or fourteen, and there was the usual results. The involuntary emissions came on only at night, were regular in appearance, and were not usually more than six or eight times a month. They were followed frequently by pains in the back and by aggravation of all the other symptoms of which I have spoken. In this case there was a certain degree of hypochondria, but it was not of a profound character. The patient was treated electrically in central and local methods, with hypodermic injections of atropia; internally by gelsemium, zinc, arsenic, and other sedatives. I lost sight of the patient before wholly restored, but he was under observation long enough to reduce the emissions in frequency, and especially to mitigate the evil effects that followed them.

In the above case the frequency of the emissions was certainly not great. According to the authorities, the patient was not in a pathological state, and yet, if the above symptoms did not indicate disease, certainly no symptoms can indicate chronic functional nervous disease. After allowing all that can possibly be claimed for the action of the mind on the body in producing disease, there remains clear proof of the actual influence of sexual disorder, producing a group of nervous symptoms independent, or at least partly of the mind—the fear, the expectations of the patient. The group of symptoms by which we are wont to diagnose such diseases, for example, as locomotor ataxy, spinal paralysis in children, hay-fever or small-pox, and diphtheria, are not more truly diagnostic of those diseases than is the above group of symptoms diagnostic of sexual disorder. When a man has these symptoms together, either alone or in conjunction with others, which will be mentioned in the course of these articles, the diagnosis, neurasthenia of a sexual origin, can be made without hesitation, whether the involuntary emissions are frequent or infrequent. In the majority of these cases the involuntary emissions occurring rarely, or infrequently, follow the stopping of the habit of masturbation, and themselves act as causes of nervous symptoms. The whole system becomes involved; the treatment therefore should be general as well as local.

That involuntary emissions may occur in the married as well as in the unmarried, or those who have full opportunity for normal coitus, is illustrated by the two following cases:

Case IX.—A number of years ago a young gentleman, about 30 years of age, who had been several years married, consulted me for very frequent-occurring emissions at night. He was of a very slight build, of the nervous diathesis, and, at times, had been excessively indulgent. There had also been self-abuse in early years. The involuntary emissions would appear, even when a few nights before there had been opportunity for emission in the natural way. He did not have all the symptoms connected with the emissions that sometimes is seen in unmarried young men. He was not at all hypochondriacal. I treated him for a considerable time by the sounds, by electricity connected with the urethral sounds, by central and general application of electricity, and a part of the time by sedative and tonic medicines. The case was more obstinate than oftentimes similar cases are in the unmarried. He did not respond rapidly to the treatment employed. But after a number of weeks the improvement was of so positive a character that it was deemed no longer necessary to continue the external applications; tonic medicines were advised for some time.

In the above case the emissions were certainly pathological. They were the results of a debility—a relaxed and congested condition of the orifice of the prostatic region of the urethra.

Case X.—Last year I was consulted by a gentleman in the beginning of middle life; unmarried, but had abundant opportunities for sexual intercourse; with symptoms of impotence of the first stage and involuntary emissions, unless he frequently indulged. If a week or two passed without coitus, involuntary emissions would appear at night. He was a gentleman of unusual strength, and had been accustomed to great freedom in sexual intercourse. The symptom for which he required aid was merely the beginning of impotence. He could not indulge so frequently or so satisfactorily as formerly. The disease in his case was purely local. There were absolutely no general nervous symptoms. There was not a trace of neurasthenia. In that respect the case is an interesting contrast to those above detailed in these papers. With persons who are strong, tough, wiry, excess makes itself felt, locally and not generally or constitutionally. He did not have any of the group of symptoms which I have stated as diagnostic of neurasthenia depending on sexual excesses. There was no sweating of the hands, no physical debility, no anthropophobia, aversion to society, no morbid fear of any kind, and not the faintest degree of hypochondria. He studied his symptoms calmly, sensibly, philosophically, and he desired relief both for what he already experienced, and for what he feared as a result in case he neglected himself. Locally, it was found on examination that the penis was cold at times, and on passing the sound with care blood would always appear, evidently coming from the prostatic region of the urethra. The patient was treated by the use of the sounds, by electricity, by the zinc combination, ergot, belladonna, and cantharides in very small doses. Chloride of gold was also employed, and at one stage damiana; at the same time it was especially insisted that abstinence for a time should be observed. The patient faithfully carried out every direction, and was rewarded by improvement of the most satisfactory character. He was warned against indulging as formerly.

He is still taking treatment a portion of the time. The only relapse that he experienced was for a period

of relative excesses, when he thought that his recovery was absolutely permanent.

In this case the involuntary emissions were surely of a pathological character, as is proved by these facts: First, they did not exist prior to the first stage of impotence. A person in general health, general and local, will not have emissions several times weekly, when he has frequent opportunity for normal intercourse. Secondly, these emissions appeared with the symptoms of impotence. Thirdly, they have disappeared with the improvement of the local condition of the patient. In the same case the entire absence of emissions might be required as a pathological symptom, as indicating a degree of impotence not necessarily absolute, but a torpid condition of the parts. This condition is observed sometimes after many years' kept-up habit of masturbation, and sometimes after very prolonged continence. The following case illustrates this:—

Case XI.—A gentleman about forty-one gave me this history. He began the habit of self-abuse at the age of sixteen, kept it up a few years, then occasionally went with women. For twenty years he had been entirely continent. The emissions which he had had at one time disappeared. There was very much diminished desire, and scarcely ever any involuntary emissions. He desired to get married, and hence sought advice and treatment. There was a very much elongated prepuce, which, however, could be pushed back, and kept back, as it can in some of these cases, by a little effort. There was slight paresis of the bladder, with frequent micturition. The nervous symptoms were not very marked. There was an abnormal or mental irritability, a very frequent result of the sexual disturbances. Otherwise the person was in fair and enviable health, weighing about 155 pounds; a good sleeper; of good appetite, and without any mental depression or hypochondria. Examination of the urine revealed the presence of spermatozoa and spermatic globules; very little of the urates and the oxalate of lime, and a few epithelial cells, especially from the prostatic portion of the urethra. The gentleman had an appearance of youth—that is, he looked younger than he really was; a symptom oftentimes found in these cases, even in the worst cases of sexual causation. One proof that there was a vein of neurasthenia in the man, was that smoking a strong cigar would at once affect the man's nervous system, and the genital parts would suffer. There was at times an escape of semen at stools. Here is a case of true spermatorrhœa, as is made absolutely clear by the examination of the urine, and by the diurnal emissions. In regard to these diurnal emissions, it may here be observed that non-expert testimony of the patients themselves may be generally accepted, for the prostatic and the urethral fluid does not come out in large quantities at such times; but even granting the liability of mistake in this respect, the examination of the urine at the hands of an expert settles the question of any doubtful case. This patient was treated in various ways. The details were changed from time to time: by the cooling catheter; by the urethral electrode, and by sounds; by central galvanization, general faradization, and electrolysis of the prostatic urethra, by strychnia, zinc, chloride of gold; and the improvement was sufficient to warrant his preparation for marriage.

In the above case the almost entire absence of seminal emissions, may be regarded as an evidence of declining power. It was an accompanying symptom of true spermatorrhœa and impotence.

*To what extent is asthenopia caused or aggravated by sexual disease?*

That difficulties of the eye may be both causes and effects of nervous symptoms, is illustrated in the following very remarkable case, which is of about equal interest to the neurologist, the oculist, and the electro-therapeutist.

Case XII.—A gentleman, 31 years of age, consulted me during the present year for headache and eye-ache, and other nervous symptoms that had interfered very seriously with his occupation, which was that of a bookkeeper. He stated that if he abstained absolutely from excitement and mental worry or effort, he felt almost entirely well; but if he indulged in these activities he would frequently have indescribable distress in the top and back part of the head. The ears would sometimes feel as though they would burst with pressure, and a feeling like that of a shock of electricity would go from the head to the extremities. Several years previous to consulting me he had had a very severe attack of nervous dyspepsia, and he subsequently became hypochondriacal. He also suffered from agoraphobia. He was in Brooklyn at that time, and could not cross the ferry alone, although able to walk many miles (I have seen and been consulted by a number of people who could not cross the ferry to New York; all of them recovered, and this man also recovered from this special symptom). Found it difficult to even leave the house where he was boarding. These mental symptoms had mostly disappeared when I first saw him. He had also been troubled at one time with fibrillary contractions, which have erroneously been supposed to be surely diagnostic of early stages of spinal disease. There had been beating and throbbing sensations in various parts of the body. He had also been troubled with sweating hands; so bad was he in this respect, that it was necessary for him to use a blotter to absorb the perspiration when he was writing. Some months before consulting me he had consulted an eminent neurologist in another city, who suggested that the eye was the cause of all the other troubles, and referred him to an oculist who diagnosed astigmatism, and found that the internal recti muscles were very weak. The trouble was chiefly in the left eye; and I may say, in the left side of the body and all through the left half of the brain. The left side of the face was most annoying. There was at times pain in the cheek, on the left side more than on the right. The patient had a habit of shaking one leg while standing. The application of atropia to the left eye at once relieved the pain. On being fitted with glasses, the pain returned, though in less degree. A very long vacation did a little, but no permanent good. When I first saw him he feared that he would not be able to take a position as bookkeeper that had recently been offered him. In this case the question to be answered was: What was the primary condition? Where did all these nervous symptoms start? I could get from the patient no history of sexual disorder of a very important character. Occasional emissions, to be sure, but not enough to suggest a pathological state. But on examination of the urine by Dr. Mittendorf, spermatozoa and spermatic globules were found, and the oxalate of lime. The result of this examination was a surprise both to the patient and myself, and it suggested a source of the irritation that might account for the obstinacy of the case.

I began to treat this patient at first generally, and then both generally and locally, with a marked improvement at once.

But the most satisfactory improvement was after

local galvanization to the weak muscles of the eye, and electrolysis of the prostatic portion of the urethra were employed. I have never seen a more sudden and gratifying effect of treatment in any case of long-standing nervous disease. He entered upon the duties of his new position, and is able to fulfil them with but little difficulty. Whereas formerly he could do very little, he now works over his books ten or fifteen hours a day. I should say that the previous treatment by bromides and iodides had no permanent effect, and he had also used various currents of electricity without satisfaction. I found that he was susceptible to certain medicines—muriatic acid for instance, with serpentaria, produced unpleasant effects.

In this case it is impossible to prove absolutely that the primal difficulty was with the sexual organs. It is possible that the neurasthenic tendency in his constitution, which he inherited from his father, first broke out in dyspepsia, and that the spermatic difficulty was secondary and the eye difficulty tertiary, but it is not impossible that the spermatorrhœa may have been the starting-point of all his troubles.

The asthenopia when it appeared became a cause or aggravation of all the other symptoms. I had the opportunity to show this case—which is so interesting both from a diagnostic and therapeutic point of view—to Dr. Lente and other medical friends. It was a whole clinique in itself, illustrating a large number of not very well-understood facts connected with neurasthenia.

## TRAUMATIC ANEURISM IN THE EYELID, FOLLOWING AN OPERATION FOR TRICHIASIS.

By F. C. HOTZ, M.D.,

CHICAGO, ILL.

A SECONDARY hemorrhage occurring one week after an operation for trichiasis, is certainly a very uncommon accident. An observation, like the following, may perhaps not have been yet recorded, namely: that one of the smallest arterioles of the eyelid, which was wounded by the incision through the free edge of the lid, formed a small aneurism, which caused several troublesome hemorrhages. The fact that the patient, an unmarried woman, was afflicted with varicose veins of the lower extremities, probably is of some etiological interest, as it manifests a want of tonicity in the coats of her blood-vessels.

Miss R. H., aged 24 years, of Irving Park, has been troubled with granular conjunctivitis for the past ten years. There is now considerable atrophy of the conjunctiva of both lids of the right eye. The edge of the right upper lid is deformed, thick, and rounded. The eyelashes are growing irregularly, a great many being directed downward, so that they rub over the cornea at every movement of the lid or eyeball. This constant mechanical irritation resulted in pannus of the whole cornea. Patient is of a very nervous temperament, and has numerous varicose veins of the lower limbs. Within the past four years she had several bad bleedings from ruptured varices.

On March 11th I performed an operation for trichiasis. The free edge of the upper lid was split, and three sutures were put into the cutaneous wound. The reaction was very moderate. On the third day the sutures were removed; the external wound was found healed; the gap along the free edge of the lid was filling up with granulations; the eyelashes were everted; and the lid was neither swollen nor painful. The conditions were so fair that I had not the slightest hesitation in allowing the patient to return home.

March 20th.—Her mother called on me this morning in great haste and fright. She informed me that the eye had been doing quite well until day before yesterday. On that day it bled a little; yesterday the upper lid was swollen, but the swelling subsided, when in the afternoon the eye bled again. Towards evening the bleeding returned, and this time was so profuse that the blood ran down the cheek in a smart, red current. They put thick layers of cotton on the eye; in fact, covered the whole right side of the face with it; and finally, the bleeding stopped. It had not bled during the night nor this morning, when she left home. She stated that the blood seemed to come from underneath the lid. I found my patient in bed, greatly frightened; her face wrapped up in cotton, which underneath had become saturated with blood, and stuck tightly to the skin. By continuously soaking it with warm water, I succeeded in removing the cotton without in the least disturbing the lid. The lid was not swollen; the cutaneous wound was still united; the incision into the free edge (made for the purpose of splitting) was cicatrized, except at a small spot in its centre. There I noticed a globular, dark red, soft protrusion of about two millimetres in diameter. I took it for a small button of granulations, and thought that by winking, the friction of the lid against the eyeball occasionally chafed off the surface of these granulations, and so started the bleeding. Upon this supposition, I snipped off the supposed granulations with a pair of fine curved scissors. The removal was followed by a hemorrhage, which seemed to me altogether too brisk for bleeding granulations. It showed a decidedly rhythmical impulse, and was evidently arterial. I could easily control it by pressing the lid gently, but firmly, against the eyeball. When the small wound was cleansed, and all coagula were removed, it looked like a small cavity lined by a membrane, and in its depth I noticed a small opening, from which I could see the blood welling out as soon as I let up on the pressure. That which I had removed with the scissors was not solid granulation tissue, but a hollow membranous shell of about three-quarter section of a globe. I then at once recognized the real nature of the granulation-like protrusion; it was an aneurismal enlargement of the end of one of the arterioles, which had been cut in splitting the lid. When cut, its lumen was at once closed by the contraction of its wall, and sealed up by a coagulum. Therefore, no bleeding occurred during the first week after the operation. But during that time the thin wall of this arteriole was gradually expanding until a small aneurism was formed, which filled the gap of the wound in the centre of the tarsal border, and protruding a little above the surface of the latter was rubbing against the eyeball and the lower lid, when the lids were moved. This continuous friction caused an erosion of the aneurismal sac; the eroded part of its wall became so thin that it could no longer withstand the impulse of the blood pressure. It burst, and a hemorrhage ensued. At first probably the rent in the aneurismal sac was very small, and soon occluded by a fibrinous clot which arrested the hemorrhage. This would account for the fact that twice the bleeding was very insignificant. The third time, however, the rent probably was larger, and the bleeding became profuse and alarming.

While pressure upon the lid was arresting the bleeding, I grasped with a pair of finely-toothed forceps the remaining part of the aneurismal sac, excised it with curved scissors, and touched the little wound

with diluted tincture of perchloride of iron. Nothing further occurred. After five days the wound was found firmly cicatrized, the lid doing well.

April 15th.—Patient called at my office. Her eye has not troubled her since. The lid appears quite natural, opens easily; lashes all well everted, and cornea almost clear.

181 CLARK STREET, CHICAGO.

# Progress of Medical Science.

FUNCTIONAL OBSTRUCTION OF THE INTESTINE, PROBABLY OF HYSTERICAL ORIGIN.—Dr. G. W. H. Kemper gives the following interesting history: The patient was a young woman, twenty-four years of age, who had been married one month. She at first suffered from slight nausea and indigestion, followed by a light and easily controlled attack of diarrhœa. Two or three days after the cessation of the diarrhœa some uneasiness was felt in the bowels, and a purgative was administered, but rejected from the stomach. Vomiting became more severe, and, on the fourth day, was stercoraceous. The temperature and pulse were nearly normal, and the patient merely complained of uneasiness in the abdomen. This region was thoroughly examined, and also the rectum and vagina; no knot or invagination could be discovered. Belladonna was given in moderate doses, and, when active restlessness occurred, morphia, combined with minute doses of calomel. Copious injections of warm water were thrown daily into the colon by means of elastic tubes. The body of the patient was occasionally inverted and manipulations made over the abdomen. Upon the fourteenth day of the disease three copious alvine evacuations occurred in rapid succession.

During the entire illness the constitutional disturbance was but slight, and the patient's strength and embonpoint were well preserved.

Three days after the bowels were moved the patient became morose and melancholy, followed by alternate fits of crying, laughter, and screaming. This hysterical condition continued for three days, and then suddenly disappeared. This hysterical condition, together with the fact that none of the symptoms indicated intussusception, serve to show that the intestinal obstruction was probably of an hysterical nature.—*The American Practitioner*, May, 1879.

NEW METHOD IN THE TREATMENT OF ACUTE CYSTITIS, OR OF ACUTE EXACERBATIONS OF CHRONIC CYSTITIS IN WOMEN.—This article constitutes an exceedingly interesting report on the result of Dr. Gehrung's new method in four cases, selected from a larger number in his practice. The plan of treatment is carried out as follows: The neck of the uterus is surrounded with a few small wads of cotton. This is followed by a large wad or two, thoroughly compressed between the fingers to facilitate introduction into the vagina, where, when let loose, it enlarges by its inherent elasticity, and fills the canal. After careful adjustment of these wads, the bladder is elevated and compressed against the pubes and abdominal wall, so to speak, between two elastic media. This cotton packing must be withdrawn and a fresh one reapplied as soon as pain and distress recur (two or three times within the first twenty-four hours, and then once or twice daily in very acute cases). Dr. Gehrung thinks that the success of this method depends upon the fact that it enables the bladder to obtain rest. It also elevates the bladder, and enables it, even if the contractility of the organ is lost, to empty itself completely. The support and compression are also valuable factors. In cases of chronic cystitis, Dr. Gehrung prefers to use his anteversion pessary instead of the cotton packing. This pessary is entirely intravaginal, reaches from one side of the rectum to the other without molesting it, and presents two horizontal bars to the posterior wall of the bladder. The following is the history of the most striking case:

Mrs. L. V., æt. 40 years, had been under treatment four years for chronic cystitis. The production of an artificial vesico-vaginal fistula had been finally proposed as a last resort. When the patient first came under Dr. Gehrung's observation she was unable to walk or stand straight, and, even while sitting, could not, on account of pelvic pain, raise her arm to her head. Examination showed anteversion of the uterus, some enlargement of the organ, endometritis and tenderness of the pelvic organs, especially of the bladder. The night before treatment was begun, the patient micturated forty-nine times within two hours. The uterus was replaced next morning with one of Dr. Gehrung's anteversion pessaries, which not alone replaces the anteverted uterus, but also elevates and supports the bladder. After rising from the operating table, the patient stood perfectly erect, and could raise her arms as high as she wished. During the ensuing night she only emptied her bladder from ten to fifteen times. In two weeks the patient only micturated once or twice during the night, and continued steadily to improve. Within three weeks later she had entirely recovered, and has remained so since (four years).

PARAPLEGIA IN SYPHILITIC SUBJECTS.—Dr. E. C. Seguin reports the histories of six interesting cases of this disease, and presents the following considerations with regard to the treatment of severe cases:

1. To keep the bladder empty, and to prevent or reduce cystitis. This is done by removing the urine two or three times a day by means of perfectly smooth, soft catheters, which are to be kept in carbolized water when not used. If cystitis exist, injections of lukewarm water, of borated or carbolized water, will do good, or even cure the disease.

2. To prevent bed-sores, by keeping the sheets and shirt of the patient perfectly smooth and taut; by preventing urine from running under him; by frequent sponging with alcohol and water; and by the use of powders. If bed-sores have formed, they should be treated with ice or snow poultices for ten minutes, twice a day, and stimulating dressings for the rest of the time; gangrenous shreds should be picked out, and the recesses of the sore injected with strongly carbolized water. Pressure should be removed by change of posture and by appropriate pads.—*Archives of Dermatology*, April, 1879.

THE NEW HAMPSHIRE STATE MEDICAL SOCIETY will hold its Eighty-ninth Annual Meeting in the city of Concord, June 17th and 18th.

THE DIAGNOSIS OF INSANITY.—The third spring course of clinical lectures on the diagnosis of insanity will be delivered at New York City Asylum, Ward's Island, by Dr. A. E. Macdonald, medical superintendent, commencing June 7th, and continued June 14th, 21st, and 28th.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, June 14, 1879.


## MR. LISTER'S ANTISEPTIC TREATMENT.

THE antiseptic method in surgery, introduced by Mr. Lister, in which carbolic acid is applied in spray form, has found so wide an acceptance, that it has almost been considered one of those fortunate suggestions which would finally graft itself upon our modern practice of surgery.

But surgery is a progressive art, and we are therefore not surprised to find that while this method is still upon its trial, Dr. Perrin, in the *Union Medicale*, expresses the opinion that they have long had in France an antiseptic treatment which is probably better, and he considers more simple and practical, than that of Mr. Lister.

It consists in the use of alcohol in the place of carbolic acid.

M. Perrin, in giving his reasons for his preference of this agent, suggests that Lister is in error in one of the fundamental principles on which he bases his well-known treatment. Thus he asserts, that in all putrid alterations there are two things to be considered, the germ and the soil which suits it, and he contends further that Lister has only had the germ in view, and therefore his method is defective. M. Perrin claims that he has made a number of experiments, which seem to prove that carbolic acid spray has really no influence on the evolution of atmospheric germs in liquids suitable for their culture, and on the consequent phenomena of putrefaction. On the other hand, alcohol diluted with an equal volume of water, he says, acts on the soil, that is, the wound; renders albuminous liquids imputrescible; has considerable coagulating power; readily stops bleeding from vessels of small calibre; quickly moistens cotton; and penetrates into the tissues of the body, without having the instant action of carbolic acid.

In military surgery, especially, M. Perrin looks on alcohol as the agent *par excellence*, and he sometimes applies it to wounds in wadding saturated with it (a drainage tube being added); and sometimes (in cases of contused wounds, complicated fractures, etc.) he practises alcoholic injections and irrigations.

In placing before the profession the views of M. Perrin, we refrain from giving any decisive opinion on the issue thus raised. This is a question which can only be answered by practical experiments, and it would be clearly a waste of time to theorize on a matter the truth or error of which is capable of such easy demonstration.

But without prejudicing the question, we may express some doubt that Mr. Lister took but a partial view of this subject. The masterly manner, however, in which he worked out his antiseptic treatment does not preclude the possibility that he overlooked such a fundamental point as M. Perrin suggests. Without doubt Mr. Lister aimed at the destruction of the germs, not only in the air and upon the instruments and the appliances, but within the wound itself, and he clearly believes that the carbolic acid spray effects this object.

M. Perrin now positively asserts that he has demonstrated, by experiments, that the carbolic-acid spray has no influence on the evolution of atmospheric germs in liquids suitable for their culture. The issue being clearly stated, let this point be first satisfactorily settled, and as it is capable of practical demonstration by simple tests we trust it will be done at once.

It is a secondary consideration to decide whether alcohol renders a wound incapable of sustaining living putrefactive elements. For, if Mr. Lister is correct in stating that carbolic-acid spray is sufficient, the question drifts into the minor consideration whether alcohol is equally potent in this respect, and, finally, which of the two agents is the most suitable for the purpose. Additional importance is given to the proposition to substitute alcohol for carbolic acid in the antiseptic treatment, from the belief of many that some of the fatal cases which have followed Lister's treatment were due to the absorption of carbolic acid applied to the wounds. Such an instance was recently brought before the Clinical Society of London by Dr. A. Pearce Gould, who pointed out, that in this particular case all went well with the patient for forty-eight hours, and then suddenly, and coincidently with the excretion of carbolic acid in the urine, the fatal symptoms set in, which he observed to be not local, but general in their character. Apparently Dr. Gould had not heard of M. Perrin's alcoholic antiseptic treatment, but he prophetically observes, in a letter recently published, that "the future of the antiseptic treatment is not bound up with carbolic acid."

This is a matter of great importance to the medical profession, and highly interesting in its scientific bearings. We know many whose decision on this question would be received with respect, and we confidently look to them for a prompt solution.

### IS VACCINATION DANGEROUS?

OUR attention has been called to a leading article in a Delaware newspaper, headed "Is Vaccination Dangerous?" in which it is stated that a lively controversy is now going on in Europe as to whether vaccination is an efficient and advisable method of preventing small-pox. We would hint to our Delaware brother that this is pretty old news, for it is full twelve years since "the renowned Dr. Collins of London," had his say on this subject before a Parliamentary commission, whose proceedings, published *verbatim* in a huge blue-book, form very wholesome reading for any one who may have been duped into according the slightest weight to "the renowned Dr. Collins" and his fellow agitators of the "Anti-Vaccination League," whose statements and fanciful deductions met the fate which overtakes the dew when the sun brings his beams to bear upon it. Silly and harmful as these vaporings are, however, by dint of incessant repetition they take hold upon the minds of simple people, especially in times when, as at present, small-pox has for a time ceased to threaten; but the logic of facts, as brought out by an epidemic, never fails to consign them again to obscurity. Men, and particularly Anglo-Saxons, object to having anything —even blessings—thrust upon them, and we cannot avoid the conclusion that this anti-vaccination twaddle is kept alive by the compulsory vaccination laws in force in some European countries. In this country the opposition to vaccination is too insignificant to call for notice. Should this state of things ever become changed, the newspapers will do well to publish freely whatever any one may have to say on the question, for the truth never permanently suffers from rough handling. As things are now, we should not have felt called upon to notice the article in question, except for the fact that it couples the name of Dr. Edward Ballard with those of "the renowned Dr. Collins," and others of that ilk. When we remember that Dr. Ballard is the author of the best essay on vaccination ever published, in which, while treating the anti-vaccinators with the utmost fairness and courtesy, he grinds their arguments to powder, we must conclude that the grievance under which the League chafes must have rather palled upon the public, else they would scarcely put forward, to sustain their cause, a man whom, next to Mr. John Simon, they have most cause to fear—the man whose essay bore off, much to their chagrin, a prize offered by one of their own set. It is so rarely, we regret to say, that a medical writer views with fairness the positions of his opponents, that one who does so may surely claim our aid in defending his utterances against such gross misrepresentation as the newspaper article here referred to gives to Dr. Ballard's account of the Rivalta cases of vaccinal syphilis. The fact that Dr. Ballard has carefully and fairly examined the vaccinal syphilis and animal vaccination questions, far from putting him in the attitude of an opponent of vaccination, makes him *ipso facto* one of the most unanswerable of its adherents.

## Reviews and Notices of Books.

THE NATIONAL DISPENSATORY. By ALFRED STILLÉ, M.D., LL.D., and JOHN M. MAISCH, Ph.D. Philadelphia: H. C. Lea. 1879. Pp. 1,628.

*First Notice.*

THIS new candidate for professional and pharmaceutic favor is a handsome volume, rivalling in size the old familiar U. S. Dispensatory, and as its intent is to satisfy the usual "long-felt want," we have examined its pages with more than usual interest and care. That a dispensatory in keeping with the times was greatly needed was clearly recognized during the discussions two or three years ago concerning the U. S. Pharmacopœia, and the proprietors of the former work promptly brought out a "revised" edition, in which the evidences of revision were not as distinct and unmistakable as many would have wished. This created the opportunity for the possible success of a rival publication, whose objects should be the same, but whose merits should be greater. Were the national the only dispensatory in existence we should not hesitate to commend it highly as the best work on the subject attainable; but as there is another and an older work that for forty years or more has enjoyed this distinction, we shall in a measure be compelled to institute a comparison between the two; but before doing so must consider the plan and the contents of the work that more immediately concerns us. The scope of the dispensatory is two-fold: pharmaceutical and therapeutical. In the first place, the work contains the text of the pharmacopœia, with comments on the various processes for the preparation and compounding of officinal and non-officinal drugs; in the second place, it supplies a large amount of pharmacological and botanical information, thus supplementing the deficiencies of the pharmacopœia in these respects. The fact that such a supplement is necessary is somewhat scandalous, and reflects no credit on the revisers of the pharmacopœia, for it must be remembered that that work is supposed to be representative in its character, while the dispensatories are purely private business enterprises, and as long as the pharmacopœia can be kept in a condition that makes it almost worthless as a work of reference, so long will there be a market for the dispensatories. It has, indeed, been hinted that this state of affairs is not altogether the result of chance, and we cannot conceal our fear that the appearance of a second dispensatory will tend still further to delay our hopes of pharmacopœial improvement and reform.

The therapeutical scope of the dispensatory should be the collection of the experience of the profession with the various articles of the materia medica, devoting comparatively little space to those that are well known and described in every text-book on therapeutics, and giving the fullest possible account of active drugs that are but little known, or that have been employed by a few practitioners only. The physician does not turn to the dispensatory in search of therapeutic information concerning mercury, opium, or belladonna, but rather to some standard text-book on materia medica; on the other hand, if he wishes to know something about a little known drug, that

has been used for something or other by somebody, he naturally turns to the dispensatory in the hope that he will there find what it has been used for, who has used it, and where they tell about it. From these standpoints we will consider the work before us.

As regards the pharmaceutical portion of the work, we can say but little, as lack of knowledge, too frequent among physicians, of pharmacy, pharmacology, and botany, unquestionably forbids any critical consideration, on our part, of these portions of the work. We may remark, however, that the arrangement is convenient, the style pleasing, and the frequent reference to modern as well as the older researches indicates that the author is familiar with the subjects he has chosen to handle, and as these concern matters of fact rather than of opinion, the statements of the author may, we presume, be accepted without question.

The portion of the work prepared by Prof. Stillé is the one that particularly interests the physician, and it is to this that we will devote special consideration. It embraces about one-fourth of the entire work, and is devoted to the physiological action and medical uses of the various drugs. In the majority of instances no reference to the physiological action is made, either because this action is unknown, or perhaps because Prof. Stillé regards a knowledge of it of little importance as an aid to the intelligent use of drugs. We believe ourselves justified in this inference by the previous writings of the author. In the preface to the last edition of his *Therapeutics and Materia Medica* he says: "In the first edition of the work he contended against the mischievous error of seeking to deduce the therapeutical uses of medicines from their physiological action. Continued study, observation, and reflection have tended to strengthen his conviction upon this subject," etc. We give this quotation, as it is the key-note of the work before us, and we will see as we advance how far it is justified by the facts recorded by the author. In dealing with the therapeutic aspects of drugs, the author rarely gives the statements and views of others, and almost never the facts and evidence which have led them to their conclusions, but instead, his own inferences and inductions, in the formation of which he is naturally influenced to a greater or less degree by what the mathematician would term the "personal equation." This method of treating the subject will specially commend the work to those who, too indolent or too busy to examine the facts for themselves, are perfectly willing to have this done for them by another. There are some, however, who prefer thinking a little for themselves, to whom the present work will prove exceedingly unsatisfactory, as it is filled with the most dogmatic statements unsupported by evidence or argument. One of the most useful features of the U. S. Dispensatory are the frequent references to original sources of information, thus enabling the reader to obtain full details concerning the matters referred to. In the National Dispensatory these are uniformly omitted, a defect that makes the book nearly valueless as a work of reference. The expressions "is said" or "is stated" occur in almost every section contributed by Prof. Stillé, but by whom said, and where said, the reader is uninformed.

With reference to drugs with which the author is practically familiar, his own dicta concerning their sphere of usefulness must be accepted as the conclusions of one eminently fitted to observe facts and to draw reasonable inductions from them. But when it comes to drugs that he has never employed, the case is different, and we are hardly prepared to definitely accept the condemnatory statements that he makes concerning many of them. His method of arriving at a conclusion seems to have, to a certain extent, a mathematical basis, *i. e.*, if ten observers have obtained certain beneficial results in the use of a given drug, and twenty others have failed to obtain them, the negative testimony outweighs the positive, and the drug is labelled as useless, a method that reminds us of the prisoner who was acquitted because ten witnesses testified that they did not see the crime committed, while but five swore that they did see it.

In view of the foregoing we will introduce a few quotations with comments, and also call attention to some other points of interest, commencing at the beginning of the book and going through it in order.

ARSENIC, p. 24.—"A longer continuance of the medicine is apt to occasion eruptions of the skin, particularly urticaria, pityriasis, and psoriasis." This is a remarkable statement, in view of the fact that arsenic is almost universally employed for their relief.

SALICYLIC ACID, p. 75.—"In this case is presented an apt illustration of the error of deducing the therapeutical uses of a medicine from its apparent physiological action." We think that the quotation concerning arsenic above given is still more "apt."

ACONITE, p. 95, appears not to have yielded good results at the hands of the author in those affections in which it has been commonly employed. This surprises us, as we know of many physicians to whom a vial of aconite is as indispensable a companion as a hypodermic syringe.

The long line of advocates of aconite, from Störck to Gubler, should teach us that there is an art in therapeutics, and that this art consists as much in properly handling powerful drugs as in the more delicate manipulations of ophthalmic surgery. Every one can give aconite, but it is not every one that gives it just at the right time, or in just the right quantity; and unless this is done how can good results be expected?

ALKEKENGI, p. 131.—To this plant a few words are devoted. Its diuretic powers have been praised by so many European writers that we are surprised that it is not in more general use. The only form in which it has been employed in this country, so far as we are aware, is in the shape of a proprietary medicine—Laville's gout pills—of which it is the principal ingredient.

ALOES, p. 137, is recommended both in *amenorrhœa* and in *menorrhagia!*

AMYL NITRITE.—Of this the author makes the usual statements, but neglects to mention the important discovery of Ringer—that the drug when given in appropriate doses is capable of relieving flushings of the face, so common and distressing to women—a fact that we have several times had an opportunity of confirming.

GOLD, p. 261.—"It is unnecessary to enter into any detail respecting a medicine which has deservedly fallen into disuse." This is certainly an extraordinary statement. Has Dr. Stillé forgotten the writings of Chrestien and Niel, of Legrand and Duhamel and Trousseau, of France, and the elders Cheesman and Delafield, of this city? It has taken the profession nearly three hundred years to learn how to employ mercury to the best advantage in syphilis (*vide infra*), and it may require the same length of time before some learn the proper and useful applications of gold in the same disease. It is not necessary to poison the patient, or "to produce a destructive activity in the morbid process," in order to obtain the best results. The dose mentioned by the author is $\frac{1}{10}$ grain of the

oxide. This is altogether too high. Better curative effects will follow smaller doses.

BURSA PASTORIS, p. 304.—"Its use is entirely obsolete." This is curious, as we have seen some four or five recommendations of it in the journals of the last six months.

The SULPHATE and SULPHITE of CALCIUM are mentioned, but not a word is said about the *sulphide*, now used by so many, following Ringer, for the control of suppuration. This drug is the *hepar sulphuris calcareum* of the older pharmaceutical writers, and was first brought prominently into notice, we believe, by Paping (1796) as a remedy against mercurial salivation.

CLEMATIS, p. 427.—Of this the author speaks by hearsay only. The drug is interesting, however, as having cured, at the hands of Störck (1769), the first case of gonorrhœal rheumatism of which we have found record.

CONIUM, p. 151.—Stillé recognizes the worthlessness of most of the *preparations* of this drug, but fails to call attention to the fluid extract prepared by Squibb, which we believe has given general satisfaction for uniformity and certainty of action.

CYCLAMEN, p. 487.—The interesting statement is made, on the authority of Vulpian, that if frogs are poisoned with this drug "their blood is found to contain a multitude of vibrios, some of which are even in the interior of the red corpuscles."

DULCAMARA, p. 511.—Of this drug Stillé speaks more flatteringly and justly, we think, than most writers. He says that the best preparation is a decoction made from the fresh stems.

SCLEROTINIC ACID, pp. 535-538.—On the former page the dose of this new derivative from ergot is given as ½–¾ grain, but three pages later it is stated to be $\frac{1}{15}$ to $\frac{1}{10}$ grain.

GELSEMIUM, pp. 593-664, appears to meet with but little favor from the author.

BROMIDE OF IRON, p. 612.—"There is not the slightest evidence of its ever having been useful as a medicine; and, as it is dangerously poisonous, it ought never to be used internally." To this assertion we must certainly demur. Arsenic, strychnine, and atropine are also "dangerously poisonous," but in appropriate doses are generally regarded as useful. We suppose no one would think of using this preparation when a sedative effect (like that of bromide of potassium) is desired, nor as an hematic in the place of the usual preparations of iron. We have, however, frequently employed it in doses of ⅓ grain and upward, and we think with benefit; and Hecquet (Recherches, etc., Paris, 1877) recommends it in doses of ¾ grain or more.

BINIODIDE OF MERCURY, p. 715.—"As an internal remedy it is superfluous, and dangerous unless very cautiously used"!!

PROTOIODIDE OF MERCURY, p. 717.—In syphilis "it should be given in doses of from three-quarters of a grain to one grain three times a day, and gradually increased until these doses are trebled, or more, provided that neither salivation nor diarrhœa occurs." We must earnestly protest against such practice as this. Few patients would stand such dosing more than a week without the occurrence of salivation, serious depression of the spirits, and perhaps of the vital powers. Few, if any, modern syphilographers employ this drug in doses exceeding one-third of a grain. Under these and smaller doses the syphilitic manifestations disappear, and the patients grow fat and hearty, even with a continuance of the remedy for months at a time. Syphilis cannot be strangled by a pound of mercury given at a dose, but it can be persuaded out of the system by the gentle allurements of minute but repeated doses. Too many competent observers have employed and still employ this plan of treatment to admit of any doubt of its efficacy. A hogshead of water may leave the stone unscathed, but if applied *guttatim* the result may be different.

We have not space at the present time for further comment. The quotations that we have given show that the work does not fairly represent the therapeutics of the present, at least as we have observed them in this part of the country. The therapeutic wave that is reaching us from the East (England) promises a milder system, but whether more or less successful time alone will tell. Although criticising the author's contributions to the National Dispensatory, we cannot forget that the last hundred years has given us, in the English language, but three standard treatises on materia medica—those of Cullen, Pereira, and Stillé—works that will be held in honor for yet a hundred years to come.

# Reports of Societies.

## MEDICAL SOCIETY OF THE STATE OF NEW JERSEY.

ONE HUNDRED AND THIRTEENTH ANNUAL MEETING.

*Held in Englewood, May 27 and 28, 1879.*

(Special Report for THE MEDICAL RECORD.)

TUESDAY, MAY 27TH—FIRST DAY.

THE Society met in the parlor of the Palisade House, Englewood Cliffs, at 8 o'clock P.M., and was called to order by the President, DR. JOHN S. COOK, of Hackettstown. Among those who occupied the platform were the three Vice-Presidents, DRS. RODGER, DOUGHERTY, and OAKLEY, and the Secretaries and the Treasurer.

Prayer was offered by REV. DR. PAYNE, of Englewood.

The Committee on Organization reported the list of Delegates and Fellows. An unusually large number of both were present, every District Society in the State being represented.

### ANNUAL ADDRESS OF THE PRESIDENT.

The President read the annual address, the subject of which was

"THE PROBLEM OF LIFE."

Having portrayed the majesty of the human mind, its seeking after the true solution of great problems, the doctor discussed the many attempts to answer the question of "How life came on the earth?" He reviewed the theories of the ancients, and showed the effect of Pasteur's observations on germ-life in the development of Listerism. A large part of the paper was devoted to the Darwinian theory, its relation to the problem of life, and the conflict of science and religion. It ended with a philosophical discussion of the question, "What is the good of life?" the effect of the teachings of Schupenhausen and Nihilism, and the lessons to be drawn from statistics regarding the wastage and the limit of life.

### DELEGATES FROM OTHER SOCIETIES.

Drs. Ferris Jacobs and S. O. Vander Poel, Honorary members, and Drs. James H. Eldridge and W. E.

Anthony, Corresponding Delegates, from the Medical Society of Rhode Island; Dr. David B. Van Slyck, from the Massachusetts Medical Society, and Drs. N. C. Husted, Robert Newman, and Professor Joseph C. Hutchison, from the Medical Society of the State of New York, were present, and were cordially welcomed by the President.

The Society then adjourned, to meet at 9.30 A.M. on Wednesday.

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WEDNESDAY, MAY 28TH—SECOND DAY.

The Society was called to order at 9.30 o'clock by the President.

REPORT OF THE STANDING COMMITTEE.

The first business of the Session was the reading of the Annual Report of the Standing Committee. The Report of the Standing Committee is always a prominent feature in the transactions of the Society, and is always received with much interest.

DR. WICKES, who has been the Chairman of the Committee for many years, read the report, of which the following is a resumé:

EPIDEMICS.

Epidemics had not been prevalent. Scarlatina, diphtheria, and diseases of the alimentary canal had occurred in less than their usual amount. Diseases of the respiratory organs had been very general, and, in some large sections of the State, in the form of influenza, epidemic. Fevers, in their varied forms, and malarial poisoning, had been almost universal. Large portions of the State, where these agencies had been heretofore almost unknown, had been invaded. Its occurrence in regions where none of the usual causes recognized by sanitarians existed, pointed to the fact that the pestilence still walked in darkness and was governed by laws which our advanced methods of scientific research had not revealed.

NEW REMEDIES.

Among new remedies, salicylic acid and its salts were noted as reliable and most efficient agents in acute rheumatism. Reports regarding the use of the cinchona alkaloids tended to prove that, in double doses, cinchonidia and cinchona equalled quinine as antiperiodics. Carbolate of ammonia (gr. i. t.i.d.) had been used in Morris County successfully, instead of quinine, in intermittents. Dr. Kipp, of Essex, in a paper on glaucoma, commended the sulphate of eserine in the subacute form; and where that agent caused pain in the head, he had used, with good effect, the muriate of pilocarpia. Jaborandi had been successfully used in hydrothorax, Bright's disease, orchitis of mumps, and in belladonna intoxication.

One reporter complained of the fraudulent character of many of the elixirs, fluid extracts, and syrups put on the market by manufacturers.

It was a question for serious consideration whether the proprietary preparations, which now so abounded, wearing the livery of officinal compounds, and advertised and recommended in most of our medical journals, were not supplanting, in too great a manner and at the expense of efficient medication, the recognized remedies of our materia medica.

The committee proposed two questions to the members of the district societies for answer:

1. *The therapeutic value of ergot.*
2. *The value of pessaries in uterine displacement.*

In summing up the answers to the first question, they concluded that ergot was a valuable agent as a uterine stimulant in parturition, but dangerous when used too early; a hemostatic in all cases of external or internal hemorrhage; invaluable for controlling the supply of blood to congested parts or organs; useful in congestive or nervous headache; a stimulant of muscular fibre; a good agent in cardiac palpitation, even better than digitalis or veratrium. In pneumonia, its action in changing the colored sputa was as prompt as quinine in intermittent.

The answers to the second question varied as widely as possible; many condemned, while many praised; language equally extravagant was used on either side; and though much instruction might be derived from the replies, no ultimate conclusions could be reached.

REPORT ON NECROLOGY.

The necrology of the year was as follows:

Edward D. G. Smith, M.D.; J. B. Jackson, M.D.; R. N. Bateman, M.D.; Frank Parsons, M.D.; J. N. Julian, M.D.; A. J. Krapon, M.D.; C. D. Deshler, M.D.; R. J. Whitely, M.D.; J. L. Taylor, M.D.; T. J. Conover, M.D.; Lemuel Burr, M.D.; ——— Kent, M.D.; James Holmes, M.D.; H. H. Rheinhart, M.D.; ——— Gulick, M.D.

The report being before the Society for discussion,

DR. HOPPER, of Bergen, referred to what was said in reference to the use of salicylates in rheumatism. He had observed in his practice markedly good results. In his own person he had recently been entirely relieved of a severe attack of acute articular rheumatism in a few days by them.

DR. RIDGE, of Camden, had also used the salicylates extensively, but with varied success. Ergot he had used extensively in nearly all forms of hemorrhage, and was much pleased with its action in these cases. He spoke disparagingly of the use of the elixirs and the proprietary medicines which have in a few years come into such general use. He was opposed to leaving the compounding of medicines to the exclusive control of the pharmacist.

DR. HERITAGE, of Worcester, advocated the use of salicylic acid and quinine. He was in the habit of prescribing iv. grs. of the acid every two hours to young children with diphtheria, and with markedly good results. He also was not an advocate for the use of the so-called proprietary medicines. He spoke commendatorily of the use of stem pessaries.

DR. OSBORNE, of Essex, had observed good results from the use of the salicylates in the treatment of rheumatism. He spoke of good results he had observed from the use of jaborandi in the treatment of tubal nephritis.

DR. CORSON, of Essex, was an advocate for the use of ergot in pulmonary hemorrhage.

DR. BODINE, of Mercer, had observed negative results only in the treatment of rheumatism with the salicylates.

DR. HUNT, of Middlesex, urged the importance of more accuracy in the observing and relating of cases.

DR. BALDWIN, of Middlesex, expressed the idea that the varied results observed by the members in the use of the salicylates and other drugs might be accounted for by the character of the drugs used.

DR. PUMYEA, of Monmouth, was surprised to learn that any physician at the present day could doubt the contagious character of scarlet fever and diphtheria. He believed there was no better settled fact in medicine than the contagion of those diseases.

DR. ROGERS, of Passaic, prefered the salicylate of soda to the salicylic acid. The latter he had found to produce a great irritation of the stomach.

DR. JOHNSON, of Warren, had been pleased with

what he had observed in the use of salicylic acid in the treatment of diabetes mellitus.

DR. LARISON, of Monmouth, spoke of a form of influenza which had been of unusual prevalence in his county during the past winter.

ON THE USE OF ALCOHOL IN MEDICINE.

The report on the Use of Alcohol in Medicine, by DR. THOS. RYERSON, of Newton, was received and referred to the Committee on Publication.

DR. J. W. CORSON, of Orange, read an abstract of a paper he had prepared

ON A HEALTHY IMPULSE OF THE HEART AS A VALUABLE SIGN OF COMPARATIVE SAFETY IN THE USE OF ANÆSTHETICS.

The abstract was well received, and a copy of the paper in full was requested for publication in the Transactions.

REPORTS OF DELEGATES.

DR. LILLY, delegate to the American Medical Association, read his report.

DR. TAYLOR, delegate to the Pennsylvania Medical Society, also read his report. Both were referred to the Committee on Publication.

PUERPERAL CONVULSIONS.

DR. L. W. OAKLEY, third Vice-President, read a very exhaustive paper on Puerperal Convulsions, which was well received and a copy requested for publication.

DR. H. G. TAYLOR presented a paper on

UNITY OF THE MEDICAL PROFESSION,

which, at his own request, owing to the lateness of the hour and the press of business, was referred to the Committee on Publication without being read.

DR. A. CLENDENIN read a valuable paper entitled,

A RÉSUMÉ UNIVERSAL, AND CONCLUSIONS THEREFROM ON YELLOW FEVER.

The paper will be published in the Transactions.

HONORARY MEMBERS.

Drs. David B. Van Slyck, of Massachusetts, Prof. Joseph C. Hutchison, of Brooklyn, N. Y., and Prof. Bracket, of Princeton, N. J., were proposed for Honorary Membership.

DR. P. V. P. HEWLETT was appointed essayist for the next meeting of the Society.

It was voted that the next annual meeting he held in Princeton.

The assessment for next year is to be one dollar per capita for members of district medical societies.

OFFICERS ELECT.

The following were elected the officers for the ensuing year:

*For President.*—Dr. A. W. Rogers.

*For Vice-Presidents.*—Drs. A. N. Dougherty, L. W. Oakley, and John W. Snowden.

*For Corresponding Secretary.*—Dr. Wm. Elmer, Jr.

*For Recording Secretary.*—Dr. Wm. Pierson, Jr.

*For Treasurer.*—Dr. W. W. L. Phillips.

*For Standing Committee.*—Drs. S. Wickes, S. Lilly, and J. L. Bodine.

*For Delegates to American Medical Association for* 1880.—Drs. A. Clendenin, J. C. Thornton, C. O. Voorhees, William Pierson, Jr., L. W. Oakley, W. R. Fisher, S. Lilly, Wm. Green, John Wright, P. C. Barker Hillard, A. W. Rogers, H. G. Wagoner, Carlos Allen, C. F. Stillman, J. C. Johnson, and C. J. Kip.

*For Delegates to Rhode Island State Medical Society.*—Drs. S. Pennington, and I. I. B. Ribble.

*For Delegates to Connecticut State Medical Society.*—Drs. W. A. Hopper and G. H. Ballenay.

*For Delegates to Massachusetts State Medical Society.*—Drs. F. Wilmarth, Jos. Parrish, and W. L. Newell.

*For Delegates to Vermont State Medical Society.*—Drs. P. C. Barker and W. W. Elmer.

*For Delegates to New York State Medical Society.*—Drs. D. A. Currie, J. W. Hunt, and E. J. Marsh.

*For Delegates to Pennsylvania State Medical Society.*—Drs. F. Gaunt, W. A. Newell, and S. Lilly.

The Society then adjourned.

## CONNECTICUT MEDICAL SOCIETY.

*Eighty-eighth Annual Meeting, May* 28 *and* 29, 1879.

DR. C. M. CARLETON, PRESIDENT, IN THE CHAIR.

(Special Report for THE MEDICAL RECORD.)

THE Eighty-eighth Annual Convention of the President and Fellows of the Connecticut Medical Society was held in the city of Hartford May 28th and 29th.

DR. C. M. CARLETON, the President of the Society, welcomed the delegates in a brief address. The first day was devoted chiefly to business The governing board of the Society consists of the President and the officers, five fellows from each county—save Tolland, which sends three—and the presidents of the eight county societies.

The President made a brief *resumé* of the business handed down from the last annual meeting.

SPECIAL AMENDMENTS.

Of this, mention was made of certain amendments to the by-laws, amendments to the charter of the Medical Department of Yale, a case of discipline, and the proposed act relating to medical tramps or itinerant practitioners.

One of the special subjects demanding attention at the present meeting was

THE PROPER MANAGEMENT AND CARE OF THE INSANE.

That the Society might receive proper information relating to the question, he had invited the Neurological Society of the City of New York to send a representative from its body, and, in accordance with the request, the Society had sent Dr. Wm. A. Hammond, of the city of New York.

STATE BOARD OF HEALTH.

The President urged the renewed co-operation of the profession with the State Board of Health. The support it had already received and its purposes and aims were heartily endorsed.

MEDICAL EXAMINER SYSTEM.

The medical examiner system of the State of Massachusetts was brought to the attention of the Society, and it was recommended that a committee be appointed to investigate the system with regard to its practical workings in that State, and to report at the next annual meeting the adaptability of the system to the State of Connecticut. The committee appointed consisted of Drs. C. W. Chamberlain, E. C. Kinney, and N. C. Wordin.

METRIC SYSTEM.

It was also recommended that a similar committee be appointed to report on the metric system.

ADULTERATION OF FOODS AND MEDICINES.

Reference was made to the subject of adulteration of food and medicines, and attention called to the law passed during the session of the last Legislature.

OFFICE OF CORONER.

In addition to the committees appointed at the suggestion of the President, one was appointed to report next year with reference to the propriety of abolishing the office of coroner.

The President then announced the various regular committees of the Society.

THE COMMITTEE ON COUNTY RESOLVES.

The above committee was regarded as the most important, because of the fact that it was to hear and report upon the case of DR. PARDEE, who had been arraigned for violation of the code by consulting with Homœopathic practitioners, by interfering with other practitioners, and by general unprofessional conduct.

A brief recess was then given to allow the delegates from the various county societies to appoint one of their number as a member of the Nominating Committee.

The Convention was again called to order, when the committee appointed last year,

ON THE REVISION OF THE YALE MEDICAL SCHOOL,

made its report through its chairman, DR. C. W. CHAMBERLAIN, of Hartford. The committee was appointed with power to appeal to the Legislature for such enactments as might be mutually agreed upon by a conjoint committee from the corporation of Yale, the medical faculty, and the Connecticut Medical Society, and reported as follows:

"The power to grant degrees in medicine belongs to a committee from the Medical Society and the professors in the Medical School. This was retained unchanged. Professors are appointed by a committee from the Society and the faculty in equal number. A majority vote is necessary. This remains essentially unchanged. The privilege of each county to nominate one gratuitous student a year was surrendered, as leading to abuses.

"The requirements for a medical degree were so arranged that the standard can be advanced as fast as circumstances permit and preliminary examinations required."

CHANGES IN THE BY-LAWS.

The BUSINESS COMMITTEE reported, for final action, such changes as were made in the by-laws by the adoption of the new charter by the Legislature, and they were passed unanimously.

ETHICAL RESOLUTIONS.

The BUSINESS COMMITTEE also reported several ethical resolutions to test the sentiments of the Convention, and the strictest interpretations of the code were maintained.

IRREGULAR PRACTITIONERS.

The committee reported favorably a resolution allowing unrestricted practice, when called, by irregulars, but forbidding one from seeking advice or aid from such. This elicited considerable debate, but found little favor among the older or rural practitioners, and was indefinitely postponed.

DELEGATES TO INTERNATIONAL MEDICAL CONGRESS.

A communication was read by the Secretary, requesting this Society to appoint delegates to the International Medical Congress at Amsterdam, next September. A committee was appointed to consider the matter, with power to appoint, and afterwards reported the names of Dr. Francis Bacon, of New Haven, and Dr. B. N. Comings, of New Britain.

TREASURER'S REPORT.

The Treasurer's report was read and referred to the Auditing Committee, who reported it as correct, and it was then accepted. There were large deficiencies in New Haven and Fairfield counties, which prevented the acquisition of a working balance in the treasury, and impeded the efficiency of the department very much, requiring the credit system to be used. Two other counties had small arrearages, Hartford and Middlesex; Tolland none.

HONORARY MEMBERS.

Dr. A. N. Bell, of Garden City, L. I., and Dr. E. Seguin, of New York, were nominated for honorary members.

The Society then adjourned, to meet at 7.30 P.M.

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EVENING SESSION.

The Society was called to order by the President.

The Committee on Nominations reported the following officers for the ensuing year, who were duly elected:

*For President.*—H. R. Goodrich, M.D., of Vernon.

*For Vice-President.*—G. S. Platt, M.D., of Waterbury.

*For Treasurer.*—F. D. Edgerton, M.D., of Middletown.

*For Secretary.*—C. W. Chamberlain, M.D., of Hartford.

Various standing committees and delegates to corresponding societies were elected.

The delegates to the New York State Medical Society were Dr. S. Turner, of Chester, and Dr. Wm. Wood, East Windsor.

EXPULSION OF DR. PARDEE.

The committee reported unanimously that Dr. M. B. Pardee be expelled.

DR. PARDEE asked permission to make a statement concerning his case, after which a short debate ensued.

The action of the Fairfield County Society was ratified, and Dr. Pardee expelled for unprofessional conduct on the charges before specified.

The following act was then reported by the chairman of the committee appointed last year, PROF. S. G. HUBBARD, of New Haven:

A PROPOSED ACT RELATING TO ITINERANT PRACTITIONERS OF MEDICINE.

SECTION 1. No itinerant practitioner of medicine, in any of its branches or specialties, shall practise or lecture thereon, within this State, unless he possesses the qualifications hereinafter required.

SEC. 2. Every itinerant practitioner of medicine, in any of its branches or specialties, who desires to practise or lecture thereon, in any of the cities, boroughs, or towns of this State, shall first procure from the Board of Censors, as hereinafter provided, a certificate, signed by all, or a majority of, the members of said board, that he or she is a graduate, in good standing, of a regularly chartered medical college, that is recognized as such by one of the medical societies represented on said board; or is a licentiate of such society; and that they are the persons named in any diploma, or other document offered in proof.

SEC. 3. It shall be the duty of the Governor to appoint at this session of the General Assembly, by and with the advice and consent of the Senate, a Board of Censors, consisting of six persons, two of whom shall be members of the Connecticut Medical Society, two of the Homœopathic Medical Society, and two of the Connecticut Medical Reform Association, respectively. . . .

The remaining sections related to the license tax and method of executing the proposed law.

After considerable debate, it was moved to indefinitely postpone the subject. The principal objections were that it was unwise to license indirectly irregular empirics, some of whom might be able to pass a creditable examination, and that the measure was too partial, and did not reach the greatest evils.

### COLLATION AT MERRILL'S.

During the evening a collation was given at Merrill's by the Hartford City Society. Among the distinguished persons present were Dr. W. A. Hammond, of New York, and Dr. Benjamin Cotting, of Boston, the latter an honorary member of this Society.

The occasion was a very pleasant one, the speeches bright and short, the stories telling and well delivered, and the temper happy.

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## SECOND DAY.

The Society was called to order by the President.

The Secretary read his annual report. The Society now numbers 420, a net gain of twenty-five. There had been fourteen deaths during the year; average age, sixty-two years. One honorary member, well known in all lands, Dr. Jacob Bigelow, had died during the year. There had been forty-three new members admitted, a larger number than in any previous year.

### THE PRESIDENT'S ANNUAL ADDRESS.

The President, DR. CARLETON, delivered his annual address—subject:

### HONESTY IN MEDICINE.

In commencing, the speaker said that, contrary to the usual practice of self-glorification and that pleasant exchange of mutual admiration which has been the ancient and therefore accepted as an honorable custom of all professional societies to follow at their annual meetings and reunions, he intended to confine himself more to matters of deficiencies in which criticism was needful and censure was merited. In the relation of the profession to the public there was much to be improved, much that furnished no cause for pride and no ground for gratification. Reform, he claimed, was needed in the schools of medicine. Carelessness on the part of the teachers and good-natured pliability on the part of the examiners, he held to be but poor encouragements to the great body of high-minded and honorable practitioners. Such things were diluting the profession with ignorance and inability, and it was no unusual thing to hear educated members of the laity express their fear and distrust of physicians. After referring to the silly jealousies and insincere criticisms to which many practitioners were prone, the speaker turned to the subject of consultation, and said that in those doctors should be honest to each other and to their patients. If there were disagreements, there should be no concealment, no covering of the errors or omission of each other. Dr. Carleton believed that it would be wise to reverse the code, so that the physician called in consultation should first give his opinion, rather than the attending physician, as now provided in the code. Further than this, there should be no mutual concessions. Continuing, Dr. Carleton said he wished to put himself on record in favor of the fullest liberty of the patient or his friends to change the attending physician for the consulting physician or any other, and especially in the event of radical differences in either diagnosis, prognosis, or treatment, and it should not be held to be unprofessional to take the case under such circumstances.

Doctors should not exaggerate the danger of the disease, nor belittle it, and thus cheat with hopes that never could be fulfilled. The true condition of the patient should never be withheld from friends, although it might be from the patient. The speaker, however, admitted that occasions might arise where a physician must guard his secret to protect the home or domestic peace of the patient. Then he might rightly say whatever he chose to avert suspicion. Dr. Carleton next took issue with the code requirement that professional courtesy compelled one practitioner to visit the patients of another without fee or reward. Many practitioners absented themselves for pleasure merely, and there was no justice in compelling others to do their work. Taking up the subject of medical jurisprudence, Dr. Carleton referred to the tendency of physicians on the witness-stand to meet an unexpected point with theory and guessing, without the courage to confess ignorance. That resulted in confusion to the individual and discredit to the profession. Medical experts should be summoned by the court and examined by the court, and should not be submitted to the badgering of lawyers. The speaker closed with an earnest appeal to all practitioners to be honest in their profession. The true physician should be contented to build up his own character within his own sphere, as a man of knowledge, fidelity, and honor.

The next address was a dissertation by DR. W. R. BARTLETT, of New Haven, on

### THE PRINCIPLES OF HYGIENE AND CONSERVATISM IN SURGERY.

This was a lengthy paper, in which the vicious surgical practices of the past were pointed out and the modern improvements described. He dwelt at some length on and noted the best methods to be employed in preparing patients for severe surgical operations, the after-treatment, etc.

The paper was discussed by Dr. Hosmer, delegate from the State Medical Society of Massachusetts; Dr. Lathrop, of the New Hampshire Society; Dr. Cotting, of Boston; Dr. Webster, of Portland, Me.; and Dr. W. A. Hammond, of New York City.

### REPORT OF THE COMMITTEE ON MATTERS OF PROFESSIONAL INTEREST.

DR. WAINWRIGHT then reported on matters of professional interest, and complained sharply of the little assistance given the committee on that subject by the profession of the State, Only one-fifth had replied to their inquiries. A better plan would be to send out the questions at the commencement rather than at the close of the year. A good deal of the work that was formerly done by this committee was being done by the State Board of Health much more fully and acceptably, and a report on vital statistics, etc., would be presented by its secretary.

### REPORT OF THE STATE BOARD OF HEALTH.

DR. CHAMBERLAIN, the secretary of the State Board of Health, then read his report. It occupied itself with vital statistics, hygienic policy, and like matters

pertaining to that special branch of medicine, illustrating the history of diphtheria, especially during the year, and its close allies, croup and scarlet fever, with considerations of epidemic and endemic forms of disease, with mortality, tables and charts. A series of apparently sporadic nests of diphtheria were described, and its progress and development, when introduced into new districts. The points illustrating the circular of the State Board of Health on diphtheria were especially noted. There were 425 cases in the place of 589. All but 170 of these were in sets of cases large enough to be considered epidemic.

Dr. Nathan Mayer, of Hartford, read an excellent paper on

YELLOW FEVER.

He described the nature of this dreadful disease, and said that experience had shown that there were but two known remedies—calomel and quinine—sometimes one, sometimes the other, and again both. The speaker, in Newbern, N. C., in 1864, treated with calomel only; to every patient in the first or third stages of the disease, twenty to thirty grains, followed three hours later by two ounces of castor oil; the rest of the treatment to be symptomatic, with this exception: no quinine on any account. The conclusions reached by Dr. Mayer were: that yellow fever in the United States generally owed its origin and spread to importation; that the yellow-fever germ, whatever it might be, possessed a vitality which enabled it after years of dormancy to become active under favorable conditions; that the following might be considered favorable conditions of development, viz.: a southern climate; season of great and protracted heat; soil saturated with the products of animal and vegetable decomposition, which was aggravated by being alternately covered by water and exposed to the sun; more or less contact with the bilge-water and filth of ships, whether they communicated with yellow-fever ports or not; the neglect of sanitary measures; a certain state of the atmosphere that was yet an unknown quantity to us, and which might not be demonstrable; a malarial region; and, finally, the presence of unacclimated material. Where those conditions existed in high potency, it was possible for the yellow-fever germ to develop *de novo*. If the carriers of infection met with few or none of the above favorable conditions, the fever was not likely to spread. Consequently, prophylaxis consisted as much in sanitary regulations as in strict quarantine, both together being the *conditio sine qua non* of immunity. As the disease seemed, besides its effects on the blood, to have its local manifestations in the abdominal viscera, chiefly in a disturbance of the liver and stomach, and in later stages of the kidneys, active purgatives formed an essential point of the treatment.

The next paper was by Dr. R. S. Goodwin, of Thomaston, on

ALCOHOL AS A THERAPEUTIC AGENT.

The author enumerated briefly some of the most prominent physiological effects of alcohol on the human system in health, and defined the position which this important drug should take as a therapeutic agent. The paper did not, however, discuss chronic alcoholism or the extensive catalogue of tissue degenerations which that subject introduced. Dr. Goodwin held that alcohol had, in general, received too much enthusiastic and over-wrought praise as a medicine, and that over-stimulation in disease was not a wise or philosophical mode of treatment. He claimed that alcohol should not be given at the same time as nutrients, nor as a febrifuge in febrile diseases, nor to women during the period of lactation. Alcohol, however, might well be employed as a means of sustaining the heart's action during alarming crises of disease, in the crises of fever, in recovery from shock, in the dangerous syncope following violent hemorrhages, in antagonizing the powerfully depressing influence of morbific agents; also in varieties of nervous disorders by virtue of its sedative influence upon the nervous centres, it might indeed sometimes be of more value than other remedies.

The next paper was on

THE INSANE COLONY AT GHEEL,

by Dr. A. M. Shew, of the Asylum for the Insane at Middletown. The colony of Gheel, Belgium, dated back to the seventh century, and had developed into a great system of government care of two thousand of the quiet, chronic insane. An interesting account of the founding of the colony was given, and Dr. Shew then proceeded to describe the treatment. The patients were first received in the hospital, and were then sent out to live and labor with the families resident in the commune. The better class of patients were provided for in the village; but the others lived with the peasants, and worked in the fields with them. Every hamlet contained restraining appliances; but they were seldom used. Excitable patients were at once transferred to Antwerp or Brussels. Dr. Shew, who visited the colony, was not pleased with the system, for the reasons that there was an absence of good medical care, a confusion of sexes, poorly ventilated houses, lack of wholesome diet, unlimited opportunity for the abuse of patients, and defective curative arrangements.

Dr. W. A. Hammond, of New York city, by invitation of the Society, read a paper on

THE CONSTRUCTION, ORGANIZATION, AND EQUIPMENT OF HOSPITALS FOR THE INSANE.

He contrasted the inhuman treatment of the insane in the past with the kindly and curative methods of to-day, and gave at length his views as to the character and accommodations of buildings to be used for homes of the insane, both the excitable and the quiet. He dwelt at some length upon the asylums of Gheel and Fitz James, and commended the outdoor employment of lunatics as calculated to afford most beneficial effects. He objected to the governmental system of asylums as too close, and claimed that it prevented the proper investigation of abuses. Few asylums are properly equipped; we saw more of methods of restraint than intelligent methods of cure. Dr. Hammond described at length some of the methods of restraint that were employed, and their injurious working, looking at them from a strictly medical point of view. In conclusion, he claimed that the medical fraternity should give more thought to the subject of the cure of the insane, and the management of insane asylums, and manifested a wish that the Connecticut Medical Society would seriously consider this subject in its application in this State.

Dr. Carleton, of Norwich, exhibited a part of a leg-bone, illustrating ununited fracture, and made an interesting statement of the case, which occurred in New London.

By invitation of the Society, Dr. Frank P. Foster, of New York, read an instructive paper on the

USE OF VACCINE MATTER TAKEN FROM THE ANIMAL;

and Dr. R. W. Matthewson, of Durham, a paper on

FIBROUS TUMOR OF UTERUS REMOVED BY LAPAROTOMY.

This closed the readings; and the following voluntary communications were read by title, and ordered published with the proceedings:

"Officinal Alcohol as a Stimulant," by Dr. D. C. Leavenworth, of New Haven; "Astringents in Diseases of the Conjunctiva," by Dr. F. M. Wilson, of Norwalk; "Perityphlitis," by Dr. E. C. Kinney, of Norwich; "Mortality of the Insane," by Dr. James B. Olmstead, of Middletown; "Registration," by Dr. C. A. Lindsley, of New Haven; "Spasmodic Spinal Paralysis," by Dr. J. H. Trent, of Terryville; "Arsenic Eating," by Dr. P. A. Jewett, of New Haven; "Treatment of the Insane," by Dr. Baker, of Middletown.

The Convention then, at 2.15 P.M., adjourned *sine die*.

The next annual meeting will be held in New Haven.

After the adjournment, the members of the Convention, delegates from other societies, and invited guests, partook of the annual dinner, which was served at Merrill's Café. This was a very enjoyable affair. After the cloth had been removed, brief speeches were made by Governor Hubbard, Charles Dudley Warner, Dr. Hosmer, of the Massachusetts Medical Society; Dr. W. A. Hammond, of New York; and Dr. Cotting, of Roxbury, Mass.; and Colonel Greene, president of the Connecticut Mutual Life Insurance Company. Letters from Dr. Fordyce Barker, of New York; J. G. Batterson, of Hartford; President Pynchon, of Trinity College, and others, were read, expressing their regret that they were not enabled to be present on the occasion. Dr. Wainwright also received, at too late an hour to present it, a letter from Governor Andrews, in which he stated that he could not be present, as he was preparing to start for Washington, D. C., on business connected with the gubernatorial office.

## THE AMERICAN ASSOCIATION FOR THE CURE OF INEBRIATES.

*Tenth Annual Meeting held in the City of New York, May 13 and 14, 1879.*

TUESDAY, MAY 13TH.—FIRST DAY.

THE Association met in the parlors of the Young Men's Christian Association, and was called to order by the President, DR. WILLARD PARKER, of New York. In his opening address the President referred to the magnitude of the study of inebriety, and the increasing interest apparent among medical men all over the country. The confusion of both theory and prevalent opinion naturally followed the first study of all great topics, and was really a hopeful sign. The past year had brought the most convincing proofs that the inebriate-asylum movement was destined to meet the question of inebriety in a more practical manner than any other. Our duty was clear: as long as the laws endorsed the free use of alcohol, so long would there be a necessity for asylums, both inebriate and insane. When the public recognized the necessity of inebriate hospitals, then the need of palace insane asylums would be lessened. He believed he was safe in saying that fully one-third of all our insane might have been saved, had they been placed in inebriate hospitals early in their history. The inebriety from which they suffered would have been checked before it went on to insanity. The Association was destined to occupy a very wide place in educating the public and developing the laws which controlled the complex disorder. In concluding, Dr. Parker urged that the Association should not spend time in discussing any of the theories urged in opposition to its work.

After some preliminary business, DR. J. B. MATTISON read a very excellent paper

"ON CHLORAL INEBRIETY."

In the discussion which followed, DR. PARRISH related a case of a hypochondriac who used opium and chloral alternately, and who made many ineffectual attempts to stop. The withdrawal of these drugs beyond a certain point was attended with severe prostration and violent fever. The doctor had also made the effort, and concluded it was great wisdom to begin again. He mentioned this case as anomalous, and as indicating a condition in which the drug seemed to be demanded for life.

DR. PARKER had noticed a similar case.

DR. MASON had seen a case where morphia was used for years, and the slightest increase or diminution would provoke violent symptoms which necessitated a return to the drug. The patient was living and in fair health.

DR. MATTISON suggested that where opium was used in conjunction with the bromides, the danger of continuing its use was greatly lessened, and in cutting down the use of opium the bromides were most serviceable.

DR. G. M. BEARD, of New York, had had a large experience in the use of narcotics, and had found that they were very often antidotes one to the other. In very troublesome cases of insomnia, he used always combinations of opium, bromides, alcohol, and other narcotics, and by alternating them he had often accomplished his purpose without any entailment or danger. He thought chloral as a medicine would seldom be followed by chloral inebriety if used in that way. In all cases where chloral was used, it should be watched very carefully.

LOSS OF MEMORY AND CONSCIOUSNESS IN INEBRIETY.

DR. T. D. CROTHERS, of Hartford, then read a paper upon the above subject, which was a study of six cases of inebriety, in which the patients had total blanks of memory and consciousness while drinking, and yet went about and transacted business, and gave no evidence of that psychical condition. In one of the cases mentioned, the patient, while in that condition, witnessed an assault and murder, and testified clearly the next day before the coroner's jury, and on the third day recovered his mind and had no recollection of it whatever. He was arrested, and was supposed to have assumed that state for the purpose of shielding the prisoner.

Another case was mentioned, of a business man who lost all memory of events while working over his books. Two days after he awoke in a distant city, and all the interval was a blank, although he had made several important business transactions and seemed perfectly conscious of all his circumstances.

The doctor indicated that cerebral automatism was present in all of these cases, and concluded with a mention of some other cases and some of the medico-legal bearings of these cases.

In the discussion which followed, DR. G. M. BEARD said the cases reported by Dr. Crothers were clearly those of *cerebral trance*, a suspension of some facul-

ties and intensification of others. That was one phase of involuntary life which was rarely studied by physiologists, and was always full of mystery.

Mr. Willett mentioned a case of a man who, while drinking, supposed that he was married, and related all the circumstances with great minuteness, offering to go on the stand and make oath to them. The history showed that it was all a delusion; and from that he argued at some length of the danger of accepting the testimony of inebriates, unless verified by other circumstances, in important trials. He would not infer that they wilfully falsified, but the liability to delusion was great.

Dr. Mason was confident that the testimony of drinking men was always more or less unreliable. He referred to a case of a man of excellent character for veracity, but who had made positive statements, and denied them equally as positively the next day. He was drinking when he made the first statement, although apparently conscious of the import and meaning of his words; the next day he was clearer, and had no recollection of his words the day before. The doctor mentioned a second case of a man who was constantly under some delusion when drinking, and yet it was not observed by his friends, and he gave no evidence of any mental disturbance.

Dr. Parrish thought that such cases were examples of paralysis of memory and will. He had seen many similar cases among the insane and idiotic. The function of memory was suddenly cut off, and the man moved about like an automaton. He might have a fair degree of intelligence left, and yet give no evidence of his real condition. Such cases were full of interest, and were of the greatest practical importance medico-legally.

Dr. Elisha Harris said Dr. Crothers had opened up a new field in his discussion of these cases, and that it threw a flood of light on many of the perplexing problems of the day. They were all types of many criminal cases, where morbid impulses had resulted in morbid cerebration, often traced to inheritance or some exciting cause. The register of memory was so impaired as to be irresponsible. He had seen some remarkable cases where the memory was a total blank. One, of a man who, while drinking, committed a murder, and, when arrested, he recovered his senses, but never could recall the events of the murder in any way. The doctor had seen other cases in which he firmly believed the person had no recollection of any of the events, and had they been well understood, they would not have been consigned to prison. He would not excuse any one for crime which they might have prevented, but these cases should be studied more carefully, and then we should understand the measure of responsibility, and do more exact justice to both the criminal and the outraged rights of society.

Medico-legally, we could not estimate their importance. Inebriety ramified in every neighborhood in the land, and its effects were felt by every section; yet the public were more or less indifferent, and failed to recognize the great fact that those cases should be studied in hospitals, and treated as diseased men. As a measure of economy alone, it would be a great advantage. These cases indicated how wide a field yet remained to be studied, and how many problems of both criminality and inebriety would be solved when we understood them.

The public were awakening to the importance of comprehending inebriety and its practical management.

The Association then adjourned.

Wednesday, May 14th—Second Day.

The Association was called to order by the President.

The first order of business was reports from the Secretary, Dr. T. D. Crothers, of Hartford, Conn., of which the following in an abstract:

The discussions of the effect of alcohol on society to-day were marked by a vague uncertainty and a changing restlessness, unnoticed before. The increased publication of books, papers, and sermons, advocating many different theories and opinions, together with the temperance revivals which had sprung up in all parts of the country, enlisting the press, and rousing up the church, followed by organized societies pledged to carry on the work (all having one common purpose—the suppression of the evils following the use of alcohol), were the most significant signs of the times, and indicated clearly a great upheaval of opinion, to be followed by a wider comprehension of those evils and their remedies.

The establishing of inebriate asylums in the midst of opposition and credulity had gone on quietly in the wake of that continuous agitation, gathering friends and influence wherever the subject and its wants were realized.

The narrow prejudice and ignorant opposition had only served to bring out more prominently the principles upon which they were founded, and behind all the clamor and sneer there was an under-current of facts (increasing every year), pointing distinctly to those asylums for a solution of the many problems of inebriety. Of over thirty inebriate asylums established in this country during the past quarter of a century, only four had suspended and gone out of existence. Considering that they were all experimental, and working without experience or precedent, and without the sympathy and co-operation of the public, their success might safely challenge comparison with any other charity of the age.

It was a well-recognized fact that the asylum treatment of inebriety was more difficult than that of insanity, and had those asylums not met a necessity as imperative as quarantine stations for infectious diseases, or hospitals for the insane, they would have all failed long ago. The early history of insane asylums was marked by many failures and imperfections, but the principles did not change. The conceptions of the work and the application of its principles might be wanting, but the necessity and value was the same. The necessity of hospital treatment for inebriety was established beyond all question. Within two years a very significant movement had begun, which was the commencement of a great revolution of public opinion in regard to asylums.

There had been opened in this country, within this time, over a thousand temporary lodging-houses and eating-rooms for inebriates—places where the poor, homeless victim, after he had signed the pledge, could be taken and cared for until he was able to go out sober and help himself.

Some of those places had five or six beds, others less. Most of them were free. Some charged a few cents, and trusted the inebriate to pay. Many of them were connected with temperance coffee-rooms, and were scarcely known. Some of the temperance eating-rooms had the names of benevolent people, who would give a room and bed to any poor worthy inebriate who was making an effort to get well. In those places they recognized the value of physical aid, and the necessity of food and rest, before the diseased will could be restored. The pledge was first given,

then the physical wants were supplied. The comforts of home and food were furnished either free, or at a cost that was merely nominal, and often clothing was also furnished. Conversation, prayer, advice, personal influence of some friend, watching and protection from old associations, and other temporary means, were employed. Many of those places were managed by societies and reformed inebriates, others by women or churches. The Women's Temperance Union and the reform clubs seemed to sustain the most of those places. In some cities single individuals were supporting little homes of this character, and the purpose of all--to shield and protect the inebriate—was one of the fundamental principles upon which inebriate asylums were based. Without any special notice, and almost unknown in the cities and towns where they existed, those initial asylums were rapidly forming public sentiment, and preparing for a larger and more enduring work in asylums properly organized.

The value of one day's restraint in those homes would bring the most positive proof of the greater good coming from a longer time, with more perfect care and attention. If good food and quiet rest would help to overcome the diseased impulse, it was only a step to realize the value of months of such surroundings, and the possibility of permanent recovery. Those homes were rapidly increasing, and following the track of the great revivals, and they were literally the first efforts of the masses to treat inebriety by rational means. From every one would go out an influence that would far transcend the individual good they could accomplish. The public were ripe for some practical methods of reaching this disorder. A small number of asylums were at work like the videttes of an advancing army. Practical men, both in and out of those asylums, recognized the possibility of making all this vast tide of inebriety support itself in hospitals sustained by law and public sympathy. All the indications were unmistakable, that behind the noise and confusion would be seen the reign of law and growth of homes and hospitals that should meet the demands of the inebriate. The medical profession had also agitated the subject, and during the past year over twenty different papers had been written and read on alcohol and its effects on society, before medical societies in this country, and from all sides came the most cheering proofs that the work of the association was scarcely begun. . . . .

Dr. Elisha Chenery, of Boston, then read a paper

ON THE EFFECT OF ALCOHOL UPON OFFSPRING,

in which he showed the effect of alcohol on the blood-corpuscles, with the changes of tissue, and the pathological conditions which followed. It was a very clear presentation of all the latest facts on the action of alcohol, and the heredity of alcoholized condition.

The paper was very ably discussed by Drs. Willard Parker, Parrish, Mattison, Willett, Mason, and others.

Dr. George M. Beard read a very able paper

ON SOME FORMS OF NEURASTHENIA RESULTING IN INEBRIETY.

Rev. John Willett followed with a paper

ON ALCOHOL AND ITS ORIGIN AND CHARACTER, AS BOTH A BEVERAGE AND A MEDICINE.

These papers were discussed at some length, after which several papers were read by title and referred to appropriate committees.

INEBRIATE ASYLUMS IN EUROPE.

A very interesting report was made by Dr. Joseph Parrish, of Burlington, N. J., of the inebriate asylum movement in Europe.

The following officers were elected for the ensuing year:

*For President.*—Dr. Willard Parker, New York.

*For Vice-Presidents.*—Dr. Albert Day, Boston, Mass.; Dr. B. N. Comings, Conn.

*For Secretary and Treasurer.*—Dr. T. D. Crothers, Hartford, Conn.

*For Secretary for Foreign Correspondence.*—Dr. Joseph Parrish, Burlington, N. J.

*For Committee on Quarterly Journal of Inebriety.*—Dr. T. D. Crothers, Dr. T. E. Mason, and Dr. Joseph Parrish.

## ANNUAL MEETING OF THE QUEENS COUNTY MEDICAL SOCIETY.

(Special Report for The Medical Record.)

The Queens County Medical Society held its Annual Meeting May 27, 1879, at Mineola; Dr. Blasdale, President, in the chair.

Four gentlemen were admitted to membership, and three were reported favorably by the Board of Censors.

Dr. J. Ordronaux gave a learned address on the subject

"WHAT IS MALARIA?"

saying it was by common consent acknowledged that it could not be defined, it could not be seen, or weighed in scales however delicate, or tested in a retort. It was only known by its effects on humanity, in which it unfavorably complicated other diseases, adding to them the sad result of fatality.

The ancients as well as the moderns had long used amulets, first as charms, and later, pads, enclosing some of the aromatic gum-resins, to keep off or cure diseases by absorption, astutely applying them over the semilunar ganglion and solar plexus. It appeared that they might have the power of attraction, and increasing the positive electricity of the body at night when in its negative and lowest state, supplementing the protective influence the sun exerted by day, and thus buoying up the system against the mysterious, stealthy attacks of malaria.

MIND AND MATTER.

Dr. R. P. Gibson, of New York, by previous invitation read a paper on the above subject, which he treated in a masterly manner, showing much research. He took and well maintained the ground that mind might, in a specially elevated sense, be nourished and vitalized in its attributes by brain nutriment, adapted directly to that end,—saying: "Bones and muscles each require a nourishment differing from one another; so nerve-fibres and brain-atoms may and do require each their different nourishment, and it must be a peculiar refinement of nourishment to be mind or spirit food. It necessitates the choicest selection, the finest discrimination, to attain this mind refinement and vigor; and to accomplish the object of raising an ordinary *sound* mind to a higher plane of capability of action, and that other point of restoring a partially *lost* mind to a sound condition. This alimentation may consist of choice foods containing appropriate constituents, and administering lacking constituents in the concentrated shape of pharmaceutical preparations." He urged the previously raising

the body to the highest standard of health; and, as a prerequisite to both, to eliminate by effective, far-reaching methods the débris and ashes of the system. Thus to attain the ultimatum of a *mens sana in corpore sano*, he emphasized the importance of the use of special systematic local exercises applied chiefly to the chest; to enlarge the chest and increase its mobility, and to strengthen the respiratory muscles, as the means of obtaining an ample supply of air and oxygen; to fully decarbonize and purify the blood and perfect digestion—means by which he has derived much benefit in the treatment of "diseases of the lungs and throat." That he considered a highly important addendal treatment, adjuvant and auxiliary to all the remedies and aids so widely in vogue, and with many good results in the medical profession at large.

Dr. Gibson's paper was highly appreciated, and he was invited to prepare another, to be read at the semi-annual meeting of the Society in October.

OVARIAN TUMOR.

Dr. John Davidson reported a case of ovarian tumor; and by the continued use of a saturated solution of chlorate of potassium he made a complete cure.

Dr. Webb regarded it as impossible, and stated that in a post-mortem case the same quantity of chlorate of potassium produced ulceration of the stomach, ending in perforation of the organ and death of the patient.

Dr. Davidson stated that the patient in question could be seen by any member of the Medical Society, and that she would give the points of her case.

Dr. W. D. Wood asked Dr. Davidson whether Dr. T. Gaillard Thomas had diagnosed the case as one of ovarian tumor.

Dr. Davidson replied in the affirmative, adding that at the present time no tumor could be found.

Dr. Trask stated that he did not think the patient's statements should be taken into consideration, and he had never known a case of ovarian tumor cured by the use alone of chlorate of potassium.

RECORD-BOOKS FOR DISEASES.

Dr. Bell stated that he would send record-books gratuitously to the physicians in the county who desired to use them.

Dr. Whitney sent a specimen of

"OSSIFICATION OF THE SPLENIC ARTERY."

Dr. Blasdale exhibited a specimen of

MAMMARY CANCER

which he removed from an aged lady, who made a rapid recovery.

COMPLIANCE WITH THE NEW MEDICAL LAW.

The new medical law, whereby all regular physicians and surgeons are required to register their names, place of birth, residence, and where graduated, in a book kept by the County Clerk, was complied with before Mr. Van Cott, notary.

The following are the officers for the ensuing year:

*For President.*—Dr. Richard S. Seaman.

*For Vice-President.*—Dr. Wm. D. Wood.

*For Secretary.*—Dr. A. G. J. Finn.

*For Censors.*—Drs. Banks, Fallon, Ludlum, Nadal, Ferrer.

*Delegates to American Medical Association.*—Drs. Trask and Frye; *alternate*, Dr. Overton.

*Delegate to Kings County Medical Society.*—Dr. Whitney.

*Delegate to Suffolk County Medical Society.*—Dr. Skinner.

*Delegate to State Medical Society.*—Dr. Bogart; *alternate*, Dr. Bell.

Unanimously elected.

(Signed) W. D. Wood, M.D.,
*Secretary.*

# Correspondence.

## DOES SUCCESSFUL VACCINATION PROVE THAT SMALL-POX HAS NOT BEEN RECENTLY EXPERIENCED?

To the Editor of The Medical Record.

Dear Sir:—I am led to ask the above question because of the following experience: On the 26th of March last there came to my office a patient with an eruption upon face and hands, which, from the history, appearance, and odor, I pronounced a mild case of small-pox. He was accordingly quarantined, and, of course, the family with whom he lived. Another physician saw the patient with me the fifth day of the eruption, and did not think of its being else than small-pox. During my service of several years as the quarantine physician of Boston, I saw and treated several hundred cases of this disease. From beginning to end of my relations with the case here mentioned, I never had a doubt but I had a case of small-pox. I think so still. At the end of two weeks my patient obtained "free pratique," and, not having been very sick, and having but one or two pock-marks, he doubted if he had had the disease.

He went to an "irregular" physician first, who told him he had not had small-pox, and to "prove it" vaccinated him. To all appearance the vaccination ran a regular course. Several physicians, "regular" and "irregular," saw it, and expressed the opinion that small-pox could not have been experienced recently. One physician, a member of the Massachusetts Medical Society, gave the patient a written statement that he "had not had small-pox within five weeks" (and also very kindly (?) advised him to "sue for damages"). In the mind of the public I am considered to have made a mistake, and my case seems likely to get into court. In "Seaton's Hand-book of Vaccination," page 279, I find that among the soldiers of the British army, not recruits, there were many more successful vaccinations among those who had had small-pox than among those who had neither had small-pox nor had been previously vaccinated. On page 281 of the same work, I find a quotation from Jenner as follows: "Although the susceptibility of the virus of the cow-pox is for the most part lost in those who have had small-pox, yet in some constitutions it is only partially destroyed, and in others it does not seem to be in the least diminished," and on such, vaccination takes "in the most perfect manner."

In Wood's Practice (fifth edition) mention is made of successful vaccinations on those who had had small-pox.

I shall be very grateful to any brother physician whose attention may be called to this letter, if he will inform me, either by letter or through the columns of the Record, of any experience or literature to the point upon my case. From the fact that some

of my medical friends were surprised to find even a hint that vaccination would "take" after small-pox, I think the subject may be one of interest to others besides myself.

Very truly yours,
C. IRVING FISHER.

HOLBROOK, MASS.

## MORTALITY OF SCARLATINA AMONG THE TENEMENT-HOUSE POPULATION.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Under the above heading, you refer, in THE MEDICAL RECORD of May 10th, to the experience of Dr. D. W. Perham, one of the district physicians to the North-Eastern Dispensary, which would appear to indicate a surprisingly light mortality, and it occurs to me to say that the epidemic of scarlatina which we have witnessed during the past winter, although noted for the very light mortality accompanying the febrile stage has, in very many cases, been followed by attacks of scarlatinal nephritis, in which the mortality has been correspondingly high, if I am to trust the reports of my associates and my own experience. Indeed, it became a subject of remark among many practitioners that they had been unaccustomed to so great a degree of kidney trouble following the recovery of their patients from the febrile stage. This is quite consistent with Dr. Perham's experience in his dispensary practice, since it is by no means unlikely that his cases may have passed from under observation before the symptoms of scarlatinal nephritis became developed.

The fact that scarlatinal nephritis appears to be more common when the eruptive stage is not very intense in character, is mentioned by most writers, and has become an accepted belief.

F. A. CASTLE.

102 E. Fifty-seventh Street, New York,
June 4, 1879.

## NORTH CAROLINA BOARD OF HEALTH.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In your issue of the 26th April you make some complimentary remarks about the North Carolina Board of Health Law, and say that, "but it is not given any power in connection with licensing or regulating medical practice, as is done in some of the Western States." Very true! But North Carolina has had a "State Board of Medical Examiners" since 1859. It is an auxiliary of the State Medical Society, as is the State Board of Health; and as there has been little or no opposition to it, the Board has increased in strength and usefulness, and is the oldest licensing body, independent of a college, in the South.

Yours very truly,
THOMAS F. WOOD.

WILMINGTON, N. C., May 28, 1879.

## NEURITIS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The paper of Dr. Putzel, in the RECORD of April 26th, is a valuable addition to the clinical evidence of neuritis migrans. Until a larger measure of pathological evidence shall be adduced, any professional and accurate opinion of the merits of the discussion between Feinberg on the one hand and Rosenbach on the other will be impossible. I have been able to demonstrate quite satisfactorily, at least to my own mind, that irritation of the sciatic nerve in the rabbit destroys the electrotonos of the nerve-current, so that it will not respond to the galvanic current, and will give but feeble reaction to the induced current. This is natural when we remember that it is the galvanic current which causes that modification of nerve-current to which the name electrotonos has been given. Between the anode and cathode of the nerve so irritated there was very slight manifestation of electric sensibility; neither were there manifest any of the responsive symptoms of the healthy nerve in the extra-polar region, when either or both electrodes were applied over the seat of the irritation. Beyond the focus of irritation the nerve-current was normal for two days. On the third day the extra-polar region exhibited signs of insensibility to both currents for a distance of about five mm., while the portion primarily acted upon by the caustic showed evidences of degeneration. This condition extended to the muscular branches and greatly modified the tonicity of the muscles supplied by them. On the seventh day the rabbit was partially paralyzed in both hind legs; there was no electro-muscular contractility and but little electro-muscular sensibility. Death on the twelfth day. Except upon the theory of "reflex inhibitory action" it would be difficult to account for certain cases of paralysis. I have met with an instance which would seem to bear out the theory of reflex paralysis. A married woman, forty-seven years old, suffered with an acute attack of congestion of the cervix uteri, and coincidently with it there was total loss of power—complete paralysis of the lower extremities. The congestion yielded to appropriate treatment, and with its subsidence the paralysis entirely disappeared, and she has never since that time been similarly afflicted.

HORATIO R. BIGELOW, M.D.

WASHINGTON, D. C., 1009 12th Street, N. W.

# Obituaries.

## JOHN THOMSON DARBY, M.D.

DR. DARBY, late Professor of Surgery in the Medical Department of the University of the City of New York, died on Monday, the 9th inst., after a lingering illness. He was born at Pond-Bluff Plantation, St. Matthew's Parish, S. C., on the 16th of December, 1886, and was a descendant from English colonial residents of the province of the Carolinas. His early education was acquired at Mt. Zion and South Carolina colleges. He pursued his first regular course of medical lectures at the Medical College of Charleston, and graduated as a doctor of medicine at the University of Pennsylvania in 1859, having been a private student of Professor Leidy. After graduating he became an interne of the St. Joseph and Philadelphia hospitals, gave private courses of instruction on surgery, and was made demonstrator in the Chant-Street School of Anatomy, then conducted by Dr. D. H. Agnew. He practised medicine in Philadelphia until the breaking out of the civil war, when he returned to his native State, and at once was appointed surgeon in the Confederate army. He served in the field from May, 1861, until the surrender, in May, 1865, having held, in succession, the position of surgeon to the Hampton Legion, and chief surgeon and medical director in various commands of the armies of Virginia and Tennessee. During the war he was sent

to Europe on a mission connected with the Medical Department of the Confederate States, where he devoted four months to a general study of the hospitals of London and Paris. At the close of the war he returned to Europe, and pursued his studies, both in the hospitals of Great Britain and of the Continent. He served as a volunteer field surgeon in the Prussian army during the German war of 1866. In 1868, while still absent in Europe, he was elected to the chair of Anatomy and Surgery in the University of South Carolina, and, on his return, established himself in Columbia. He subsequently resigned this position, and, in 1873, accepted the professorship of Surgical Anatomy in the Medical Department of the University of the City of New York. In the following year he was elected Professor of Surgery in the same institution, which position he held until a short time before his death, when he was made Emeritus Professor. At the time of his death he held the position of Visiting Surgeon to Bellevue and Mt. Sinai Hospitals of New York, and was a Member of the Medical Society of the County of New York; the New York Academy of Medicine; the Academy of Sciences, Philadelphia; Permanent Member of the American Medical Association; and several local medical societies. He was also ex-President of the State Medical Association of South Carolina. Dr. Darby was a genial gentleman, and a favorite medical teacher. His skill as a surgeon was fully recognized by his colleagues, and by those who had opportunity of witnessing some of the more brilliant of his operations. Among his contributions to medical literature the more prominent are: "A Thesis on the Anatomy, Physiology, and Pathology of the Supra-Renal Capsules;" "Campaign Notes on the German War of 1866;" "Horse-hair as a Ligature and Suture;" "Liquid-Glass as a Surgical Dressing;" and "The Trephine in Traumatic Epilepsy."

## FRANCIS FONTAINE MAURY, M.D.

On Wednesday evening, June 4th, at about half-past nine o'clock, Dr. F. F. Maury, a very prominent and talented Philadelphia surgeon, died at his late residence, No. 1218 Walnut Street, Philadelphia, in the thirty-ninth year of his age, after an illness of over two months' duration, the immediate cause of his death being congestion of the lungs. Between two and three months ago Dr. Maury accompanied the late Colonel Samuel S. Moon on a trip to the Hot Springs, Arkansas, where Col. Moon went for his health, Dr. Maury travelling with him as medical adviser. When he left the city, Dr. Maury's wife was in perfect health, but was seized with acute peritonitis during his absence, and died just before he returned home. The husband was overwhelmed with grief at this sudden loss, and soon afterwards was taken sick himself, and continued to grow worse until he was seized with the attack which carried him off.

Dr. Maury was born in Danville, Ky., on the 4th of August, 1840. His father was a clergyman, and was born in Virginia, and descended from a French Huguenot family. The deceased was educated at Centre College, Danville, and graduated in 1859. He attended his first course of lectures at the medical department of the University of Virginia, but went the next year to Philadelphia, and graduated at Jefferson Medical College in 1862. Since his graduation, Dr. Maury has always lived and practised in Philadelphia. He was the first surgeon in the United States to perform the operation of gastrotomy.

Dr. Maury edited *The Photographic Bureau of Medicine and Surgery* for two years, and published a number of reports of medical and surgical cases. He was surgeon to the Jefferson Medical College Hospital, and it was largely through his efforts that this hospital was established. He was also one of the surgeons to the Philadelphia Hospital, and during the war was Surgeon-in-chief of the United States Army Hospital at Twenty-fourth and South streets, Philadelphia. He was lecturer on venereal and cutaneous diseases in Jefferson Medical College, and was also a fellow of the Philadelphia College of Physicians and Pathological Society.

At the time of his death Dr. Maury was surgeon to the First City Troop, of Philadelphia, and had held that position for some time. He served as coroner's physician several years ago. Dr. Maury came to Philadelphia as an entire stranger, but his success in his profession was remarkable and immediate. His specialty was venereal diseases. The deceased leaves two young children.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 1 to June 6, 1879.*

BENTLEY, E. Capt. and Asst. Surgeon. Granted leave of absence for one month. S. O. 88., Dept. of the South, June 2, 1879.

EWEN, C., Capt. and Asst. Surgeon. Assigned to duty at Fort Elliott, Texas. S. O. 107, Dept. of the Missouri, June 2, 1879.

# Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending June 7, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| May 31, 1879. | 0 | 2 | 112 | 8 | 40 | 24 | 2 | 0 |
| June 7, 1879. | 0 | 6 | 101 | 2 | 54 | 28 | 6 | 0 |

THE AMERICAN NEUROLOGICAL ASSOCIATION.—The American Neurological Association will hold its Fifth Annual Meeting, in Municipal Hall, 67 Madison Ave., New York city, beginning at 2.30 P.M. Wednesday, June 18th, and the profession are invited to attend the meetings of the Association on the 18th, 19th, and 20th.

AN ACT FOR THE RELIEF OF DR. WILLIAM A. HAMMOND.

WAR DEPARTMENT,
WASHINGTON CITY, May 12, 1879.

SIR:—I have the honor to enclose herewith draft of a bill to amend an act entitled an act for the relief of William A Hammond, late surgeon-general of the

army, approved March 15, 1878, and to recommend the passage thereof. I have the honor to remain,

Your obedient servant,

GEO. W. MCCRARY,

Secretary of War.

Hon. Samuel J. Randall, Speaker House of Representatives.

*Be it enacted, etc.*, That the act entitled an act for the relief of William A. Hammond, late surgeon-general of the army, approved March 15, 1878, be, and the same is hereby amended by adding to the first section thereof the following proviso: *Provided*, That the President may in his discretion consider any newly discovered evidence, or any evidence improperly excluded upon the trial of said Hammond touching the truth or the falsity of the charges upon which he was tried.

INTESTINAL OCCLUSION CURED BY INJECTIONS OF SELTZER-WATER.—Dr. Prunac adds another to the cases of volvulus already reported as cured by rectal injections of Seltzer-water. The patient, a man seventy-five years of age, had suffered for three months from severe diarrhœa, when the passages suddenly stopped, and for five days he passed neither fæces nor gas per anum. The other symptoms were fecal vomiting, frequent hiccough, anxious facies, cold, clammy perspiration, small, quick pulse, and intense tympanites with consequent dyspnœa. After the failure of several other methods of treatment, an œsophageal catheter was introduced almost its entire length into the rectum, its external opening was fitted to the tube of a siphon of Seltzer water, and the contents of three siphons (about two quarts) were injected into the intestine. This was followed by the injection, by ordinary means, of another quart of the water. A few hours later the obstruction gave way, and large quantities of fluid and solid fecal matters and gas were passed per anum. The symptoms at once began to improve, and after five days the recovery was complete. Dr. Prunac thinks the employment of the siphon preferable to simple injections of gaseous water; its advantages are of a more forcible projection of the fluid and complete retention of its gaseous constituents.—*Gazette des Hôpitaux.*

POISONING BY CYANIDE OF POTASSIUM.—Dr. Warneck, of Kiel, reports the case of a man, who took, with suicidal intent, nearly 45 grains of cyanide of potassium. The principal symptoms were immediate loss of consciousness, vomiting of food and of a fluid having the odor of bitter almonds, profound coma, viscid perspiration, coldness of the extremities, cyanosis, convulsive twitching of the eyes, dilatation of the pupils, abolition of motion, sensation, and reflex excitability, irregular and superficial respiration, small, irregular pulse, 120 to the minute, fall of the temperature to 97.2° F., and involuntary micturition. Dr. Warneck injected half a drachm of sulphuric ether subcutaneously, and then washed out the stomach until the water used no longer had any odor of bitter almonds. The condition of the patient, however, rapidly became worse, the respiration becoming more irregular and the pulse smaller, despite repeated injections of ether. He was then placed in a bath at 91½°, and iced water was poured over the head and the nape of the neck. Every time the water was poured on the head, the patient drew deep inspirations. Gradually the respiration became deeper and more regular, and all the dangerous symptoms disappeared after a bath of one hour. Convalescence was rapid, but a general muscular weakness and an impairment of speech persisted for a long time.—*Lyon Médical.*

"THE PHYSICIAN AND SURGEON."—We have just received the first number of a new Western journal, entitled *The Physician and Surgeon*, and edited by V. C. Vaughan, M.D., Ph.D. It is to be a monthly, and devoted to *practical* medicine and surgery. There are five associate editors. This first number contains several interesting original articles, and the abstracts are well selected. It is well printed on heavy paper.

"THE CHEMIST AND DRUGGIST," of Philadelphia, has changed its title and publishers: the former is "*The Monthly Review of Medicine and Pharmacy*;" the latter are Keasbey and Mattison.

THE CASE OF DR. GROUX, THE MAN WITHOUT A STERNUM.—Dr. Charles Jewett has an article, in the Proceedings of the Kings County Medical Society, on the anatomy of Dr. E. A. Groux, lately deceased. For many years the latter went from college to college exhibiting his chest minus a sternum, and an apparent ability of voluntarily suspending the heart's action.

PYROGALLIC ACID IN HÆMOPTYSIS is highly recommended in hæmoptysis, metrorrhagia, and other internal hemorrhages on account of its small dose, its not deranging the stomach as other remedies do, because it is easily taken and has no disagreeable aftertaste. It is asserted to be more rapid and certain in its action than gallic or tannic acid, ergot, pil. plumbi cum opio, etc. It is soluble in water or spirit.

SALICYLIC ACID IN DYSPEPSIA.—Prof. Kolbe, of Leipzig, took gr. xv., in divided doses, daily for dyspepsia during *nine months*, not only without any unpleasant symptoms or album in his urine, but with the effect of curing his dyspepsia and improvement in general health.

DANGEROUS COLORS IN WALL-PAPER.—Mr. L. Siebold, of London, found arsenic in 50 out of 60 samples of wall-paper of various colors, blue, red, brown, pink, etc. This fact may assist us in explaining the cause of many slight attacks of functional derangements in children which so puzzle the mother and doctor.

CHINESE ANATOMY.—The Chinese physicians are not necessarily skilled anatomists or accomplished physiologists, since, at a recent inquest at San José, Dr. Cog Fy, the attendant physician upon the deceased, to the question: "How many lungs has a man?" replied: "Seven." He further stated there are five holes in the human heart, and that the function of the latter is "to catch air in."

THE MEDICAL REGISTER of New York, New Jersey, and Connecticut for the year commencing June 15, 1879, has appeared, Dr. William T. White, editor; G. P. Putnam's Sons, publishers. In addition to the usual material, the present volume contains valuable statistical tables. The book reflects credit upon the editor, upon the Medico-Historical Society, and upon the publishers.

## BOOKS RECEIVED.

DISEASES OF THE THROAT AND NASAL PASSAGES. By J. SOLIS COHEN, M.D. Second Edition. Revised and amended. New York: Wm. Wood & Co., 1879.

COMPENDIUM DER FRAUENKRANKHEITEN ZUM GEBRAUCHE FÜR STUDIRENDE UND AERZTE. Von DR. C. G. ROTHE, prakt. Arzt in Altenburg. Mit 59 Holzschnitten. Leipsig: Verlag von Ambr. Abel.

POSOLOGICAL TABLE, including all the officinal and the most frequently employed unofficinal preparations. By CHARLES RICE, Chemist Department of Public Charities and Corrections. New York: Wm. Wood & Co., 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, June 21, 1879.

## THE NATURE, CAUSES, AND PREVENTION OF THE INFECTIOUS DISEASES.

At the last meeting of the London Pathological Society, the committee appointed to inquire, at the suggestion of the late Dr. Murchison, into the nature, causes, and prevention of the infectious diseases known as pyæmia, septicæmia, and purulent infection, made its report. The report was voluminous, and embraced observations made under three heads: etiology, semeiology, and pathology. The deductions reached relating to the etiology of pyæmia and septicæmia, and based on statistics taken from ten large London hospitals, are very interesting. The committee accepted the recognized distinction between pyæmia and septicæmia, consisting in the presence of metastatic abscess in the former only, and first directed their attention to the subject of artificial septicæmia. For this form of septicæmia they use the term "septic intoxication," and, although their calculation has been made only approximately, they believe that for its development introduction of as much as two or three ounces of putrid serum into the blood at the same time is necessary. To permit this, two conditions are requisite: first, opportunity for the accumulation of fœtid discharge; and second, a large absorbing surface. This is the form attended by the greatest mortality, and doubtless obtains in many cases of rapid death after ovariotomy. The morbid anatomy of this form is represented chiefly by softening of the spleen, subserous hemorrhage, and fluidity of the blood. As far as could be ascertained, the effects produced by infection from one patient to another, ordinary septicæmia, were very nearly the same as those produced by rapid septic intoxication, except that they are spread over a longer period of time. Koch, however, first showed that there is an anatomical difference between them, and that in all cases of ordinary septicæmia—septic infection—the blood contains organisms. The report contained the detailed histories of twenty-nine cases of septicæmia, of which two were cases of rapid septic intoxication.

### PYÆMIA.

While the committee retained the ordinary definition of the term pyæmia in the 127 cases reported, they make no fewer than eight subdivisions of this form of blood-poisoning. They base these subdivisions mainly upon the situation and relations of thrombosis and softening clots to secondary abscesses, and thus give separate places to the pyæmia following acute necrosis and ulcerative endocarditis. This seems to us like an unnecessary refinement, and has the appearance of a distinction without a difference. With reference to organisms, they were found in nearly all the cases in which the blood was examined, but there was no constant proportion nor constant uniformity of size and shape. The committee did not attempt to trace relations between the different forms described, simply state the facts, and state that they believe the facts justify the conclusion that the organisms are evidence of the existence rather than the cause of the blood-poisoning.

The histo-pathological investigation was remarkably thorough, and was attended by a singularly uniform result. The spherical form of organisms—micrococci—were present in large numbers in all parts, but bacteria were found in only two cases, and, in one of those, they were probably due to decomposition. There is, doubtless, some explanation for the fact that bacteria were found in the blood in many cases during life, while in only one case were they found after death, but like wise men the committee did not give an expression of opinion upon this point. The report is doubtless the most complete that has been offered upon the subject of pyæmia and septicæmia, and will prove a most valuable aid in the future study of infectious diseases.

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### THE REPORT ON THE STATE INSANE ASYLUMS.

The Senate committee, to inquire into the condition of the insane of the State, after a certain amount of investigation, reported back that the asylums were in excellent condition, particularly the State Lunatic Asylum, and that the wanton attack upon them was unworthy of the profession and degrading to the dignity of the State. The spirit of the report seems to be to bring out prominently all the favorable facts, and ignore everything of a contrary nature.

This result of the committee's investigations was doubtless due in part to the powerful political influence of asylum superintendents, and partly to the inefficient manner in which the petition for investigation was framed and supported. For this document covered only part of the ground that might have been taken, and it expended much of its force upon petty complaints against asylum superintendents and unim-

portant details of management. The whole investigation was so interwoven with personal and political feelings—so much more a fight than an inquiry—that its ever having been undertaken is much to be regretted. Although it may produce a certain amount of benefit by inciting those in charge of asylums to more vigilance in discharge of their duties, its general effect will be to give the public the impression that everything is as good as it can be in connection with the State insane, and to discourage further attempts at reform.

We hope it will not be forgotten, however, in spite of the eulogistic statements of the committee that there are many very radical defects in the management of our insane, and we believe that some of our asylum superintendents are not only cognizant of that fact, but are desirous that changes should be made. No amount of partisan rhetoric can disguise the fact that though the State has spent four millions in extravagantly designed insane asylum buildings during the past ten years, there is, nevertheless, almost as much overcrowding now as ever; further, that nearly two-thirds of the State insane are still in badly managed county asylums and poor-houses; that early and efficient treatment of the insane is generally impossible; that the asylums have, as a rule, insufficient attendance and too much physical restraint; that, in fine, with our insane every year increasing, and with the spasmodic erection of costly and unwieldy asylums furnishing no adequate relief to this increase, we need some radical changes and reforms in the matter in question. The declarations and fulsome eulogies which resulted from the recent incomplete investigation should not blind the public to these facts.

Senator Goebel, who quoted the praises, by the English alienist, of the State Lunatic Asylum, forgot entirely to quote the scathing criticisms from the same person upon other State institutions where, perhaps, he had not been entertained so liberally.

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### THE NATIONAL BOARD OF HEALTH.

The National Board of Health has been in session in Washington during the past week. Regulations were adopted with regard to maritime quarantine, making it the duty of consular officers to keep themselves thoroughly informed as to the existence of infectious diseases in the neighborhood of their stations, and requiring the master of every merchant ship sailing from a port where there is such an officer to procure a bill of health that shall be either clean or foul, according as the disease does or does not exist at said port. Provisions have also been made for care in excluding from ships passengers or goods suspected of being infected, and for proper attention to cleanliness. These are substantial advances towards an effectual quarantine against such diseases as cholera, yellow fever, small-pox, typhus fever, and others of like character.

The National Board of Health, under the recent law, is also required to co-operate with State and municipal organizations, and recommendations have been made looking towards an effective system of internal quarantine. We trust there will be no conflict between authorities upon questions, the proper decision of which is so important to the common weal. It seems to be accepted that a national quarantine can be established that will not in any way interfere with the varying interests of the ports along the entire Atlantic coast, and yet prove an effectual barrier against an invasion by epidemic diseases. We hope that the most sanguine expectations of the Board and of the people will be realized by a careful execution of the present law.

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### THE ABUSE OF MEDICAL CHARITY.

We publish this week the last discussion held on the above subject before the Medical Society of this county. Some plain facts have been given, and so long as the abuse continues to exist and to increase, it should not be forgotten by the profession and by the public. An important point made in the paper read by Dr. Sturgis, and sustained by several who participated in the discussion, was that physicians were largely, if not entirely, responsible for this ill-conditioned nuisance. If the putrescence is in our own household, there should be sufficient vitality and sanitary science in the profession to remove it, or at least so correct its foul odor that it will not rise as a stench to the nostrils of honest philanthropic men and women. If genuine honesty of purpose can be instilled into the hearts of all who now hold, as well as those who, while under the excitement of the last emotion to do charity, make application for dispensary positions, and we believe there is room for the medicament, it will do much towards suppressing the growing evil. The question has its knotty points; but there is no doubt that an educated public opinion, fortified by a sturdy declaration on the part of the medical profession that, having rights, they dare to maintain them, can establish a permanent and radical reform. The remark incidentally made by one of the speakers, that the profession and the city would be better off were all the dispensaries wiped out, is worthy of candid consideration. The resolution adopted by the Society is a favorable step, and we hope its existence will be daily remembered.

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### MEDICAL CERTIFICATES.

Still they come! Organisms from Bilbo! Last of all, a certificate attached to a lager-bier advertisement, originating at the capital of the State, and signed by three gentlemen of recognized good standing in the medical profession.

The healing properties of the Richfield Springs are embalmed in the memories of thirty-two medical gentlemen from New York, Philadelphia, Boston, and other cities, deservedly eminent in their profession, and their names appear in a circular which goes wide spread asking that bread be cast upon their waters. There they are, and if the trouble is in your eye or ear the virtue of the water can be attested; if you have a friend who is insane, he need not grow gray with the malady, for the doctor has been to the pool; if your respiratory organs are weak, lung doctors can suggest where they may be strengthened; if large doses irritate your gastric mucous membrane, and disturb the tranquillity of your conscience, the small-pill man can transform the sombre covering into a delicate *gray* robe; if the promontory on your face has met with misfortune and sadly needs a plastic operation, you can be posted in that particular; and if you belong to the class, so numerous, who suffer from general debility, staid general practitioners can guide your feet to the healing fountains.

Saratoga, one of the pioneer watering-places, disliking to be outdone by honest competition, sends greeting to the world, and throws to the breeze her banner bearing the names of those who can tell how an easy *delivery* from the thraldom of disease can be effected.

While we do not care to look over the precipice, and are not yet prepared to believe that the time will come when it will be necessary for physicians of eminence to placard their backs with the plain words, "Commit no nuisance under penalty of law," we fear there are many in our ranks who either intentionally or indifferently are hastening the dawn of that unfortunate era. What a conglomeration of counsel is represented by the names! As we scan the list a ray of hope is obtained only in the thought that, in this, as in certain other propositions, "there is safety in numbers." There are allopaths and homœopaths, wolves in sheep's clothing and goats by the name of scape; the seer and the verdant, with portraits at full length, reflected either in the beer-vats of Albany or the delicious medicinal waters of Richfield and Saratoga.

### A SUBSTITUTE FOR HANGING.

Protestations against the present method of executing criminals have been frequently and urgently made; but they have not as yet secured much attention from our legislators. The difficulties of changing a long-established practice are immense, especially when such practice is one that no person can fail to feel some delicacy in claiming a personal interest in. In addition, it has generally been thought, and we believe rightly, that most of the cases where death has failed to take place at once have been due to carelessness and lack of skill on the part of the executioner, and not the fault of the method itself. The subject has, however, been considered recently, with more than usual care, by Dr. Packard, of Philadelphia; and this gentleman urges, as the result of his examination, that death should be produced by carbonic oxide. He proposes that the victim should be placed in a small, air-tight room; the air should then be rapidly replaced by carbonic oxide gas, when death will take place in the most rapid and painless manner known to science. In ten minutes, indeed, the corpse can be removed from the room and identified by the jury. The process, as compared with those cases of hanging, not very frequent, where the death-struggle lasts for five, or even fifteen minutes, certainly seems superior. After all, however, when hanging is properly done there is scarcely any practicable mode of extinguishing life that has so many fatal elements in it. According to Hoffmann, of Vienna, there takes place when the noose is suddenly tightened a complete closure of the carotids and jugulars, which arrests the circulation in the brain; a pressure on the pneumogastrics, which may even of itself cause unconsciousness; an occlusion of the trachea, and possibly a rupture of the odontoid ligaments, and pressure on the medulla. And all these are certainly enough. M. Fleischmann, by experiments on himself, proved that in the act of hanging there was no pain, but merely, at first, a ringing in the ears, then a flash of light, and then unconsciousness. Various investigations, therefore, seem to indicate that hanging may be made the most humane and effective method of execution, if properly carried out. But it is certain that those who superintend the matter in our country need more knowledge and skill in regard to the application of this judicial process.

## Reviews and Notices of Books.

A GUIDE TO THE QUALITATIVE AND QUANTITATIVE ANALYSIS OF THE URINE. By DR. C. NEUBAUER and DR. J. VOGEL. Translated from the seventh German edition by E. G. Cutler, M.D.; revised by E. S. Wood, M.D. pp. 551, 8vo. New York: Wm. Wood & Co. 1879.

A WORK that has already reached seven editions in the original, and has been translated into other European languages, hardly requires recommendation now that it again appears in an English form. There are but two exhaustive treatises on this subject extant: that of Thudichum, which has been before the profession for twenty years or more, and the one now before us. The work is divided into two main parts; the first by Neubauer, which treats the subject from a chemical standpoint only, and that by Vogel, which considers the semiology of the urine, and points out the relations between the observed chemical changes and the alterations of the system that have given rise to them. In other words, the inquirer is enabled to ascertain not only the abnormalities of the urine, but also the pathological states of which they are the indications.

The first part of the work is divided into three por-

tions, embracing the physical and chemical properties of normal urine, the normal and abnormal constituents of urine with the methods for their detection and isolation, urinary sediments, and accidental and medicinal constituents. A hundred pages are then devoted to the methods for the performance of qualitative estimations; these are followed by thirty pages devoted to the systematic analysis of the urine, including the recognition of sediments under the microscope and methods for their permanent preservation.

Dr. Vogel's contribution to the work embraces two hundred pages and contains a large collection of valuable matter that would otherwise have to be sought in the pages of many books. The work is embellished with three lithographic plates, representing the microscopic appearances of the urinary sediments and a chromo-lithographic chart or color table of the urine, together with a colored spectrum showing the blood-bands. The paper is excellent and the type large and clear, and the copy before us is bound in a reddish leather that forms an agreeable contrast to, and change from the light colored sheep bindings with which we have so long been familiar. It also appears to be a stronger leather than that in general use, and impresses us as being more durable.

THE BRAIN AND ITS DISEASES. Vol. I. SYPHILIS OF THE BRAIN AND SPINAL CORD. THOMAS STRETCH DOWSE, M.D. London: Baillière, Tindall & Cox. 1879.

THE little work of Buzzard has been hitherto the only book in the English language dealing with nervous syphilis alone, and as this work was fragmentary and appeared some time before the translations of Heubner, it was necessary to consult French and German authorities, if extended information was needed. Dr. Dowse's volume is therefore a welcome addition to this branch of neurological literature. It is divided into eight chapters, the first of which treats of the "History and Nature of Syphilis," but a photograph of syphilitic disease of the rectum is presented which strikes us as strangely out of place in a book which takes for its subject an organ situated at the other end of the body. Subsequent chapters are devoted to the diagnosis of "Syphilis of the Brain and Spinal Cord; Sympathetic System of Nerves; of the Peripheral Nerves," etc. Chapter V. deals with "Treatment," VI. with "Hereditary Syphilis," VII. with "Syphilitic Epilepsy," and VIII. with "Pathology." Leaving the first chapters, which contain but little that is new, we turn our attention to those upon diagnosis, which are exceedingly practical, and present cases which very appropriately illustrate the subject. This criticism, however, does not apply to "Diseases of the Sympathetic System," for Cases X. and XII. show absolutely no peculiar characteristics, and would pass equally well for examples of ordinary dysæsthesia or hypochondriasis, which might be due to any, or even no cause whatever.

The article on "Syphilitic Epilepsy" is very full and ably written, and the chapter upon "Pathology," though not so complete as it might be, shows, nevertheless, original research. We regret that more attention has not been paid to the mental changes so peculiar to certain forms of syphilitic disease of the brain.

The typography of the book is good, and the paper is excellent. The illustrations, with the exception of that already referred to, and a woodcut on page 72, are quite good. The latter cut is exceedingly bad and shows nothing whatever.

A CLINICAL TREATISE ON DISEASES OF THE LIVER. By DR. FRIED. THEOD. FRERICHS, Professor of Clinical Medicine in the University of Berlin, etc. In three volumes. Vol. I., translated by Charles Murchison, M.D., F.R.C.P. New York: Wm. Wood & Co., 27 Great Jones Street, 1879. Wood's Library of Standard Medical Authors.

THE English edition of Frerichs on the liver, consisting of two volumes, has been divided into three volumes, which will appear in the series constituting Wood's Library of Standard Medical Authors. The present volume is the first, and contains the historical account of diseases of the liver, the definition of the dimensions and weight of the organ, physical diagnosis, the chapters on icterus, acholia, acute and chronic atrophy, and the fatty liver. The established reputation of the original work places the present volume, and those which are to follow, beyond special criticism. The age of the book entitles it to reverential consideration at least, and for that reason it may have lost some of its pristine excellence as a standard authority upon the diseases of the liver. The date of the author's preface is 1858, and that of the translator's preface is 1860. Doubtless very much has been learned concerning diseases of the liver since those dates, and the query might arise whether either a later edition or some more recent work could not have been turned into this channel with a larger acceptance by the profession and a greater profit to the publishers. However, it is a good book, and in its present form will be a most valuable addition to the library of the general practitioner.

Vol. II. contains chapters on the pigment liver: hyperæmia of the liver and its consequences; inflammation of the liver, its various forms and consequences; the waxy, lardaceous, or amyloid degeneration of the liver; and hypertrophy of the liver. To these is added an appendix, and the whole embraces 228 pages. It has a frontispiece on which are illustrated a syphilitic fibroid nodule, alveolar cancer, cavernous tumor, and hepatic cells in a state of waxy degeneration.

Vol. III. contains chapters on pathological new-formations in the liver—hepatic tumors; diseases of the blood-vessels of the liver; and diseases of the biliary passages. To these is added an appendix, and the whole embraces 239 pages.

To this volume is also added a general index for the three volumes. It also has a frontispiece on which are illustrated crystals of bile-pigment crystalline forms of carbonate of lime from the mucous membrane of the gall-bladder, and gall-stones of a variety of shapes.

MODERN SURGICAL THERAPEUTICS: a Compendium of Current Formulæ, Approved Dressings, and Specific Methods for the Treatment of Surgical Diseases and Injuries. By GEORGE H. NAPHEYS, A.M., M.D. Sixth edition. Philadelphia: D. G. Brinton, 1879. 8vo, pp. 605.

WE are not surprised at the popularity of this work, as it was guaranteed from the start by the plan which was adopted and by the thoroughly practical information which it contained. Between thirty and forty pages have been added to the work, and no pains seem to have been spared to bring it up to date. We are informed in the preface that the present edition "is called the sixth so as to make it synchronous with the sixth edition of Naphey's Therapeutics, as it is the development of the surgical part of that work; as a separate volume it is in its second edition." The work is of great value as one of ready reference for the general practitioner.

LECTURES ON PRACTICAL SURGERY. By H. H. TOLAND, M.D., Professor of Principles and Practice of Surgery, Medical Department of University of California. Second edition. Philadelphia: Lindsay & Blakiston, 1879. 8vo, pp. 518.

THIS book comprises a course of lectures delivered at the medical school, in which the author is Professor of Surgery. As such it is quite complete, embodying the author's views upon many of the departments of surgery, and will no doubt be valuable to the pupils of the university for whom it is more particularly intended. There have been but few changes from the first edition, except the addition of an extra lecture, and an account of two more cases of aneurism.

THE TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION, Vol. XXIX. Philadelphia, 1878. 8vo, pp. 1,145.

THE present volume, which is an unusually ponderous one, represents the doings of the Association at its meeting in Buffalo last year. It contains thirty-nine original papers on various subjects connected with the different departments of medicine and surgery, added to which is the prize essay of Dr. John A. Wyeth, which adds a special value to the volume. The different papers are of great interest, there being scarcely two or three that would not repay careful study; but Dr. Wyeth's Essay is an interesting work in itself, and comprises an exhaustive history of the surgical anatomy of the common, external, internal, innominate, and subclavian arteries. In this essay there is an analysis of 173 dissections of the surgical regions of the neck, and a collection of 1,198 cases in which the results of deligation of these vessels are given. To the practical surgeon this essay is an invaluable contribution, and we are pleased to see that, being published in separate form, it is saved from being virtually lost to all but members of the association.

ESSAYS ON SURGICAL ANATOMY AND SURGERY, etc., etc. By JOHN A. WYETH, M.D. New York: William Wood & Co., 1879. 8vo, pp. 261.

WHILE we say that the volume is on the whole an interesting one it is the more to be regretted that its field of usefulness is so small, and that by a resolution of the Association papers read before the said body cannot be given to the medical world through the medical journals. The manual is as usual well printed, and is bound in the style uniform with previous editions. The present one is well worth the standard price of $5.

A TREATISE ON THERAPEUTICS, comprising Materia Medica and Toxicology, with Especial Reference to the Application of the Physiological Action of Drugs to Clinical Medicine. By H. C. WOOD, JR., M.D., Prof. Materia Medica and Therapeutics, etc., University of Pennsylvania. Third edition, revised and enlarged. Philadelphia: J. B. Lippincott & Co., 1879. 8vo, pp. 719.

IT is unnecessary to say to any student of materia medica that the work of Prof. Wood is a standard, and that, as an exposition of the physiological action of drugs and its application to clinical medicine, it is unsurpassed. The present edition is brought up to the present state of our knowledge by numerous alterations and elaborations of the text, and by the addition of new articles, as for instance, those on salicin, borax, thymol, etc. The articles on jaborandi and salicylic acid have been virtually rewritten. These necessary additions have increased the size of the work by fifty pages. The success of the work is well merited and reflects credit upon its studious and accomplished author.

HEALTH, AND HOW TO PROMOTE IT. By RICHARD M. SHERRY, M.D. New York: D. Appleton & Co., 1879. Pp. 185.

A GREAT deal of popular hygienic literature is being supplied us just now. The fact indicates that the public is arousing to the importance of taking care of itself, and even though this popular interest in Health Primers, Health Guides, etc., be a somewhat spasmodic one, it cannot fail to leave a permanent impress in improved habits. We can welcome the present book, therefore, as a useful contribution to the subject. It has no remarkable features, either good or bad, but the author is a candid and reliable compiler of hygienic details which will, no doubt, be of value and interest to the laity, although he presents nothing new to the physician.

PRACTICAL INSTRUCTION IN ANIMAL MAGNETISM. By J. P. F. DELEUZE. Translated by T. C. Hartshorn. Revised edition. New York: Samuel R. Wells & Co., 1879.

THIS book is addressed to the general public, and may therefore be excused for its entire lack of scientific value. As far as its matter is concerned we find it to be quite beyond criticism—in the same sense that Mother Goose is. It has stories of second sight, previsions and post-visions, mysterious fluids, complicated passes, and miraculous cures, which are full of interest and stimulus to unbalanced imaginations, but of no particular value to persons who desire well-demonstrated truths. We do not doubt, of course, the main facts concerning the peculiar nervous conditions referred to here as mesmeric and somnambulic states. But the book is an illustration of how valueless the most interesting phenomena become when interpreted and distorted by the light of puerile theories.

NAVAL HYGIENE. Human Health and the Means of Preventing Disease, with Illustrative Incidents, Principally derived from Naval Experience. By JOSEPH WILSON, M.D., U.S.N. Second Edition. Philadelphia: Lindsay & Blakiston, 1879. Pp. 274.

THIS is a book which treats its subject practically and pleasantly, without being either very exhaustive or very scientific. It is, indeed, intended for naval men generally, and not for the surgeons alone. One of the more interesting among the not very abundant original notes concerns the use of farinaceous drinks. The firemen employed about the furnaces are sometimes greatly exhausted by heat, the profuse perspiration making a large quantity of water necessary to supply the waste. Cold water on an empty stomach in these circumstances might produce sudden death. By mixing three or four ounces of oatmeal, however, to the gallon of water, the danger is obviated, and the drink seems to fill the blood-vessels without increasing the cutaneous exhalation. Other illustrations of the value of such farinaceous drinks are given.

EIGHTY-NINTH ANNUAL REPORT OF THE NEW YORK DISPENSARY, January, 1879.

THIS is the oldest and one of the best conducted dispensaries in the city, and its report, which is made up with more care than such documents usually receive, shows that its work is very extensive. The resident population of the dispensary district is 180,000, of whom 38,051, or one in five, have been treated during the past year. In 1877, there were 43,623 cases relieved, showing a decrease of over five thousand in

1878. This decrease is accounted for by the fact that during the year the practice of charging a small sum for prescriptions and medicine has been introduced. This plan we believe to be a ridiculously inadequate attempt at dispensary reforms, but it seems to be thought a success by the dispensary officers, and the five thousand decrease of patients mentioned is supposed to represent, to some extent, the number of undeserving cases that would have been treated.

LECTURES ON ELECTRICITY IN ITS RELATIONS TO MEDICINE AND SURGERY. By A. D. ROCKWELL, A.M., M.D. New York: Wm. Wood & Co., 1879.

THIS little octavo book, of some 100 pages, is one that may be read with much satisfaction by the general practitioner. It is short, concise, and explains the practical points that one needs in electro-medicine without wasting time with theoretical considerations or going deeply into the hazy regions of electro-physics. An abundance of cuts illustrate the more common instruments that are in use. At the close of the book there are a series of pithy paragraphs, giving in plain language the practical applications of the different currents to various affections, as shown by the personal experience of the writer, and those of other competent specialists. The book will certainly serve as a useful guide for the physician or surgeon who is anxious to get a brief survey of the field of electricity from a medical standpoint, or is desirous of carrying out electrical treatment in any of the various instances in which this valuable therapeutic agent is indicated.

FASTING GIRLS: THEIR PHYSIOLOGY AND PATHOLOGY. By W. A. HAMMOND, M.D. New York: G. P. Putnam's Sons. 1879. P. 76.

THIS is a very interesting and readable little work, in Dr. Hammond's usual graceful style. The book is evidently written with especial reference to the somewhat celebrated Mollie Fancher case, of Brooklyn, which exercised the popular mind so strongly during the latter part of last year. In addition to two chapters upon the aforesaid Brooklyn case and upon the physiology of inanition, the remainder of the book is devoted to a consideration of some of the more remarkable cases of prolonged fasting which have been referred to by ancient and modern writers, including that of Sarah Jacob, the Welsh fasting girl, and Louise Lateau, the Belgian stigmatisée. While not going exhaustively into the subject, Dr. Hammond presents a very strong case, and fully accomplishes the object expressed in the preface, of doing something "towards the removal of a lamentable degree of popular ignorance." The book will be read with satisfaction by medical men as well as laymen.

AN ATLAS OF HUMAN ANATOMY, Illustrating most of the Ordinary Dissections, and many not usually Practised by the Student; accompanied by An Explanatory Text. By RICKMAN JOHN GODLEE, M.S., F.R.C.S., of University College. Philadelphia: Lindsay & Blakiston. 1878. Part I.

THIS work is in large folio, and contains four colored plates with two figures on each plate. They illustrate the anatomy of the neck, and both drawing and coloring are extremely well done. The object of this Atlas, as stated by the author, is to supply a full illustration of the anatomy of the human body in a convenient form; to present dissections not ordinarily undertaken, as well as to give a better idea of the relations of parts; and to make the dissections follow each other in such a way that the student may work out more easily the steps by which particular organs and regions are to be exposed.

The work is very finely executed, and is one that will be of great help in dissection and in accompanying anatomical studies.

PROCEEDINGS OF THE EIGHTY-NINTH ANNUAL SESSION OF THE MEDICAL SOCIETY OF DELAWARE. At Lewes, Del., June, 1878.

THIS pamphlet contains the able opening address of the President, Dr. William T. Collins, and an extremely curious case of pelvic cellulitis, reported by Dr. W. T. Skinner. Mrs. T., aged 65, was attacked, without known cause, with pelvic cellulitis. It resulted in suppuration and the establishment of an undoubted *utero-intestinal fistula*, pus and fæces being freely discharged through the os and vagina. The fistula was connected with the small intestine. The patient slowly recovered. This is, we believe, the fifth case of the kind ever reported. Dr. H. Burton was elected President, and Dr. Geo. Troup Maxwell, Secretary, for the ensuing year.

TRANSACTIONS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION. Second Meeting, at Saratoga, August, 1878. Reported by the Secretary, Dr. R. W. Taylor, New York: D. Appleton & Co. 1879.

THE papers read at this meeting are noticeable for their treating especially of the rarer skin affections, and the general practitioner is likely to be somewhat dismayed at the long contributions and exhaustive discussions upon Xeroderma, Ulceration, Scrofuloderm, Inflammatory Fungoid Neoplasm, The Trichophyton Tonsurans, etc. They indicate enthusiastic and careful study in this department of medical science. The more practical articles upon the Use of Linseed Oil in Skin Affections, and The Treatment of Hirsuties have appeared more or less fully in the RECORD. A classification of skin diseases was adopted by the Association. Statistics concerning the prevalence of leprosy in America are given. These show its presence, to some extent, in the Gulf States, in Minnesota, and amongst the Chinese in California.

THE DISEASES OF LIVE STOCK AND THEIR MOST EFFICIENT REMEDIES; INCLUDING HORSES, CATTLE, SHEEP, AND SWINE. By LLOYD V. TELLOR, M.D. Philadelphia: Dr. G. Brinton, 115 South Seventh Street. 1879.

THIS work is a compilation, by a practising physician, not a veterinary surgeon, of an immense amount of valuable information taken from the works of such veterinary authorities as Professor William Williams, Finlay Dun, John Gamgee, George Armitage in Great Britain, and Law, Townshend, Chawner, etc., in our own country. It is not strictly for professional men; indeed, it is hardly comprehensive enough for a veterinarian, as it contains no reference to pathology. For farmers, country gentlemen, and dealers, it would seem to be a plain, practical book. It is evidently written by an accomplished physician, who merely exposes what is really known, and omits all that is doubtful or theoretical. The therapeutical portions are clear, precise, and simple. For physicians in country practice, who are at all times likely to be called on to become veterinarians, it will furnish an excellent resource in cases of emergency. It is well classified, and has a good index.

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COD-LIVER OIL EMULSION.—℞. Calcis et sodæ hypophosphit., ʒ ij; Ext. malti, f ʒ ij; Ol. morrhuæ, f ʒ iv; Aquæ, f ʒ ij; Ol. amygd. amar., ♏. iv. M. Sig.—Tablespoonful an average dose.—Dr. M. L. JAMES in *Trans. Med. Soc. Va.*, 1878.

# Reports of Societies.

## OHIO STATE MEDICAL SOCIETY.

THIRTY-FOURTH ANNUAL MEETING, HELD AT DAYTON, O., JUNE 3, 4, and 5, 1879.

(Special Report for THE MEDICAL RECORD.)

THE Thirty-fourth Annual Meeting of the Ohio State Medical Society took place at Dayton, O., June 3d, 4th, and 5th. The meeting was a large and enthusiastic one.

Papors were presented as follows:

ADDRESS OF WELCOME, by Dr. J. M. Weaver, of National Soldiers' Home.

*The Treatment of the Various Forms of Consumption.* By Dr. Roberts Bartholow, of Cincinnati.

*The Preservation of Good Eyesight and the Use of Spectacles.* By Dr. J. H. Buckner, of Cincinnati.

*Hog Cholera.* By D. N. Kinsman, Columbus.

*Report on Progress of Surgery.* By Dr. S. F. Forbes, of Toledo.

*Mixed Anæsthesia.* By Dr. J. C. Reeve, of Dayton.

*Report on Progress of Gynecology.* By Dr. Thad. A. Reamy, of Cincinnati.

*National Sanitary Science.* By Dr. G. E. Walton, of Cincinnati.

*Glaucoma.* By Dr. S. C. Ayres, of Cincinnati.

*Plaster-of-Paris Roller in Treatment of Club-foot.* By Dr. P. S. Conner, of Cincinnati.

*Tubercle.* By Dr. H. J. Herrick, of Cleveland.

*Medical Mispronunciation.* By Dr. A. C. McLaughlin, of Tremont City.

PRESIDENT'S ADDRESS. By Dr. B. B. Leonard, of West Liberty.

### CONSOLIDATION OF MEDICAL COLLEGES.

The Committee appointed last year on the Consolidation of Medical Colleges, where two or more exist in one city, reported that they had had a meeting, but that no union was feasible, and asked to be discharged.

### DUTY ON QUININE.

A motion that Congress be requested to abolish the duty on quinine was carried unanimously.

Fifty-four new members were added.

### THE METRIC SYSTEM.

A large number of tracts from the Boston Metric Bureau were received and distributed. Near the close of the Session, and at a time when the attendance was unusually full, a motion was made to adopt the metric system, in papers presented, transactions, etc. After a speech by Dr. J. F. Baldwin, of Columbus, made neither for nor against the system, but simply that the members might vote intelligently on the subject, followed by remarks by Drs. E. H. Hyatt, of Delaware, and H. J. Herrick, of Cleveland, the resolution to adopt was unanimously voted down; *unanimously*, not because no body voted for it, but because every body voted *against* it. Dr. Baldwin was also, by vote, requested to embody his remarks in a paper to be published in the Transactions, and also to be sent for publication to the medical journals.

### OFFICERS ELECTED FOR THE ENSUING YEAR:

*For President*—J. A. Murphy, M.D., of Cincinnati.

*For Vice-Presidents*—John Davis, M.D., of Dayton; Thos. G. McEbright, M.D., of Akron; J. D. Edwards, M.D., of Xenia; C. A. Kirkley, M.D., of Toledo.

*For Treasurer and Librarian*—T. W. Jones, M.D., of Columbus.

*For Secretary*—J. F. Baldwin, M.D., of Columbus.

*For Assistant Secretary*—Jesse Snodgrass, M.D., of Kenton.

The next Annual Meeting will be held at Cleveland, commencing June 15, 1880.

## ARKANSAS STATE MEDICAL SOCIETY.

YELLOW FEVER AND QUARANTINE.

REPORT BY DR. R. G. JENNINGS.

Special Report for the MEDICAL RECORD.

AT the annual meeting of the Arkansas State Medical Society, held in Little Rock, May 14 and 15, 1879, Dr. R. G. Jennings made a report, of which the following is an abstract of his statements with reference to yellow fever and quarantine.

When it was reported that yellow fever was spreading rapidly at New Orleans, the Little Rock city council appointed (August 3d) a board of health. That board met and organized August 6th, and at once declared a quarantine against New Orleans. August 13th, reports from Memphis announced one case of yellow fever, and the next day two deaths and nine new cases. Quarantine was declared that day, August 14th, against the city of Memphis and all other infected places in the Mississippi Valley. The freight and passenger trains on the Memphis and Little Rock Railroad were stopped running altogether.

Arkansas not having established a State board of health, all expectations of beneficial results from a quarantine centred in the city of Little Rock; and to the action of its board of health the attention of the whole people of the State was directed. After the quarantine at Little Rock was in full force and effect, a large number of incorporated towns along the public highway of travel followed her example, and established independent local quarantines, adopting such sanitary measures as were deemed essential, and imposing such restrictions as were considered expedient. Notwithstanding all those precautions taken, and a rigid enforcement of such regulation, undoubtedly cases of yellow fever or some other disease of a very close kinship did enter the State. At Augusta, Woodruff County, some half dozen or more suspicious cases occurred, that proved fatal. Those cases were supposed to be yellow fever. Fortunately the disease neither became general nor spread into the country, and entirely disappeared with the first frost. Quite a number of cases of yellow fever occurred at Hopefield, opposite Memphis. The disease first appeared among refugees from that city, and soon attacked a majority of the people of Hopefield. It only ceased for want of material, though it continued until the appearance of frost. A young lady went from Memphis to Helena, had the yellow fever, and died with it there. One case afterwards was reported as having recovered from it. Then all reports of the disease from that place ceased for some weeks, when either the revival of the fever occurred, or other disease equally as fatal sprang into existence, and threatened the city. When the reports of new cases had reached the large number of sixty in one day, frost occurred, and there were no more published reports from Helena. There seemed

to have been a diversity of opinion among the Helena physicians as to the true character of the latter outbreak; but its reported rapid extension and great fatality lead to only one solution of the problem, which could be best stated by asking: If it was not yellow fever, what was it? One case of yellow fever occurred at Washington, Hempstead County, in the person of Rev. Richard Samuels (colored), who died on the eleventh day of the attack from relapse. That case created considerable alarm among the people. The Washington Board of Health, however, acted promptly, established a *shotgun* quarantine around his house, which fortunately was isolated, something over a mile from the town, preventing all ingress and egress except upon necessity, and after his death destroyed everything liable to become infected, and thus prevented any spreading of the disease. The case of Samuels presented something of a connective history, and he could not refrain from giving it, for a twofold purpose, viz., that it was connected with another case, to be reported, and it illustrated the manner in which infection might be transported for long distances, both of which would be found of much interest. Four colored ministers—three from the southern portion of the State, and one from Little Rock—passed through Memphis, August 3d, to attend a religious convention at Jackson, Tennessee. They remained at the latter place some ten days or two weeks, where they obtained health certificates. When they arrived at Humboldt, they had to wait the greater portion of the night for a train. Seeing a box freight-car open, half full of rice in sacks, direct from New Orleans, they concluded to enter the car and sleep awhile. Two of them lay down upon the rice-sacks, and the other two upon the floor of the car. All four returned to Little Rock, where they remained one day, when three of them continued their journey to their homes in the southern portion of the State. Samuels, one of the two who had slept upon the rice-sacks, had but reached home before he was taken down with yellow fever and died, as previously reported. The Rev. Jas. Reed (colored), one of the four ministers, and one of the two who slept upon the rice-sacks, returned to Little Rock, his home, with the others. As soon as it became known Samuels had the fever, Dr. Jennings sent the chief of police after Reed, knowing he was with him. Reed could not be found, and the chief of police reported that his house was closed. Thus the matter rested. Some weeks after this, Reed's wife returned to the city, but not until all danger of the communication of the disease was over, and reported that Reed, believing he would have the yellow fever, and knowing the excitement in the city among the people about it, took his little family and removed beyond the Fourche Mountain, a distance of over three miles from the city, into an isolated cabin, where he had the fever, and died with it. It was a little singular that only the two who slept upon the rice-sacks had the fever, more particularly so as they all had considerable discussion upon the subject prior to lying down—the two who slept upon the floor of the car contending that it would be dangerous to sleep upon the sacks, and the two who slept upon them taking the opposite ground, believing there was no danger. Those facts were given by Samuels prior to his death, and corroborated by the two men living. Thus Little Rock, after all the rigid enforcement of her quarantine, came very near having a case of yellow fever; but the circumstance of Reed's death was known by only a few persons, and had never been made public until the present. Fortunately the disease was never communicated to any other person.

## NATIONAL BOARD OF HEALTH.

*Adjourned Meeting, held at Atlanta, Ga., May 5, 1879.*

JAMES L. CABELL, M.D., LL.D., OF VIRGINIA, PRESIDENT, IN THE CHAIR.

### MARITIME QUARANTINE—QUARANTINE REGULATIONS FOR SAILING-VESSELS.

DR. JOHN S. BILLINGS, U.S.A., Washington, D.C., reported that the order of business for the day was the exclusive discussion of the question of maritime quarantine under the following heads:

1. The sanitary history of a vessel in a foreign port; embracing the means of securing the best possible sanitary condition of the cargo, passengers, and ship destined for the United States.

2. The sanitary regulation of vessels during the passage.

3. The methods and regulations for preliminary inspection and quarantine upon the arrival of the vessel.

4. The treatment of the passengers and care of the men upon the ship.

5. The treatment of the cargo and ballast.

6. The treatment of the ship after disposition of the passengers, and the regulations necessary to secure its thorough sanitary condition.

The President called upon Dr. S. O. Vander Poel, Health Officer of the Port of New York, to open the discussion.

DR. VANDER POEL remarked that formerly he thought it impossible to establish in this country a system of national quarantine, so varied were the interests and the climate of the various localities exposed to invasion from foreign ports. He had, however, reached the conclusion that a national system of quarantine could be established upon one principle, namely, that it should confine itself to the sanitary regulation of the different ports, and leave the ports to perfect its own police regulations.

The term quarantine he regarded as an unfortunate one, because there was associated with it the idea of detention. *Detention* really had nothing whatever to do with thorough quarantine, and the idea should be entirely removed. To prepare the way to the discussion of the several topics submitted, he offered the following general propositions:

1. That quarantine did not recognize detention as a necessary factor, except so far as it pertained either to the invasive processes of disease or to the time requisite to secure the proper sanitary condition of passengers, cargo, and vessel.

2. The manner of transmission of disease and the incubative period must be made the basis of action.

#### SAILING-VESSELS.

No objections or comments being offered to the general propositions,

DR. VANDER POEL remarked upon the *first* question, namely, measures necessary to secure the best possible sanitary condition of a vessel while in a foreign port, that the following were requisite:

1. Daily pumping out the bilge-water until it came out clean.

2. Careful regulation of the diet of the crew, and seeing that they returned to the vessel at a specified time.

3. Daily bathing and change of clothing.

4. Daily movement from the bowels.

While the vessel was in transit, all those precautions should be taken as fully as possible. Absolute clean-

liness of the ship was the great essential, but especially of the bilge.

The President then called upon representatives from the different ports along the Atlantic coast, and responses were made by Dr. Cleeman, of Philadelphia; Dr. Howard, of Baltimore; Dr. Nash, of Norfolk; and Mayor Cobb, of Pensacola. Those gentlemen endorsed the propositions in the main, both general and special, given by Dr. Vander Poel.

Dr. Howard thought it extremely questionable that the germs of yellow fever always sought the bilge, as suggested by Dr. Vander Poel, and believed that they were more likely to be found in the dirty clothing and quarters of the sailors.

The next topic—*The methods and regulations for preliminary inspection and quarantine upon the arrival of the vessel*—being open for discussion, Dr. Vander Poel remarked that he detained the vessel not less than forty-eight hours, because a certain length of time was required to secure thorough cleanliness, and use some simple disinfectant. He usually employed chlorine, as it was more simple and equally effective as sulphur. After that the hatches were opened, and fumigation made in every tenable part of the vessel. The vessel was fumigated twice daily during the entire time it remained at Quarantine. When that was done, the vessel was discharged; and it was discharged at the earliest possible moment, for the simple reason that, after it was fumigated, the longer the cargo remained the more violent would be the disease. The cargo should be discharged as soon as possible, fumigation practised at the close of each day's work, and usually at the end of two days the ship was entirely lightered. The lighters were not allowed to return to the city during the quarantine season. If, in exceptional instances, return became necessary, the men must remain without exposure until the period of incubation—five days—had passed. Any man who worked in the hold of the vessel during the discharge of the cargo must remain five days after the vessel was emptied, and the process of cleansing begun; and for purposes of cleansing, a scrub-broom and plenty of water was better than fumigation.

Dr. Cleeman, of Philadelphia, remarked that he should be afraid to endorse the system of allowing goods to be removed so early from an infected vessel.

Dr. Howard, of Baltimore, stated vessels were only rarely lightered at that port. Every vessel liable to be infected with yellow fever was ordered to cast anchor and remain; and when it was thoroughly fumigated and cleansed, and the clothing of the sailors was thoroughly cleansed, it was allowed to proceed directly to the docks. He regarded absolute cleanliness as more valuable than either fumigation or disinfection, so-called, although sulphur and chlorine were sometimes used. Nothing was done with the vessel after the cargo was removed.

Dr. Vander Poel remarked that lighterage did not delay the vessel; and he thought that, in New York, it would not be safe to allow the suspected vessel to go to the docks without having first discharged her cargo and been made absolutely and thoroughly clean. No case of yellow fever had been traced to the cargo in the port of New York, and no lighter had become sick by reason of special exposure during his work.

Dr. Howard agreed that lightering would be safer, but the increase in expense would be considerable. Again, if the germs were not in the cargo, why lighter? There was no advantage in it, unless it was to get at certain parts of the vessel in which he thought the germs would not be found.

## AFTERNOON SESSION.

### QUARANTINE REGULATIONS FOR STEAMERS.

Dr. Vander Poel stated that steamers were less liable to become infected by yellow fever, etc., than sailing-vessels:

*First.* Because they were rarely in an infected port more than one or two days; they expedited all their operations, and pursued their course to a very large extent according to fixed and recognized regulations.

*Second.* There was much better discipline upon steamers than upon sailing-vessels. There were several recognized departments, each of which had its distinct head, and the consequence was a much better sanitary control of the whole ship than could obtain in sailing-vessels.

*Third.* Steamers had better appliances for maintaining proper ventilation.

*Fourth.* Steamers had the facilities for pumping out the bilge without difficulty. At the port of New York, steamers from Havana or other infected port were compelled to remain at Quarantine a little more than five days from the time of leaving Havana—the usual period of incubation for yellow fever. Then, if the passengers were all well, and there had been no sickness on board during the trip, they were carried to the city. Immediately after the discharge of the passengers the vessel was taken to Quarantine, the cargo discharged, and then treated the same as a sailing-vessel.

### THE TREATMENT OF THE PASSENGERS AND CARE OF THE MEN UPON THE SHIP.

Upon the above topic Dr. Vander Poel remarked that all the clothing upon a sick man, before arrival, was taken from him and destroyed, and new clothing given him. He was then carried to the hospital, where his clothing was again changed, so that no clothing which came from the infected vessel ever entered the ward. The sick were supplied with what was called transfer clothing, which, on arrival at the hospital, was thrown into a disinfecting solution. The point in that minute care was to secure absolute immunity among the attendants and persons upon the island at Lower Quarantine from the yellow fever. The complete escape thus far, Dr. Vander Poel ascribed to the care taken to prevent the admission to the wards of the hospital of any clothing taken from the infected vessel.

Dr. Howard, of Baltimore, agreed with Dr. Vander Poel with reference to the comparative liability of steamers and sailing-vessels becoming infected with yellow fever, and carrying it from one port to another. With reference to the sick on board, he took them ashore without changing the clothing, placed them in wooden barracks, and allowed them to wear the same clothing, which was at once destroyed as soon as either death or recovery took place. They had not had a case of yellow fever originating in the hospital. Post-mortems had been made in nearly all the fatal cases, and no physician had taken the disease; and he attributed the exemption of the attendants and the physicians to the fact that all clothing, bed and bedding, and other porous articles used about the patient, were immediately destroyed as soon as either death or recovery occurred.

Dr. Vander Poel remarked that if the effluvium of the disease was transmitted by clothing, it was a proper precaution to take special care of the clothing before the patient was allowed to enter the wards of the hospital.

Dr. Folsom, of the port of Boston, remarked that

their procedure was very nearly the same as that in operation at the port of New York. In certain cases vessels coming from a port at which yellow fever was prevailing were not allowed to reach the city during the hot weather, but were detained at Quarantine until the cold season arrived, unless special precautions were instituted by the owners of the vessel and the cargo.

Dr. Nash, of Norfolk, remarked that his experience was very much like that related by Dr. Vander Poel with regard to steamers and sailing vessels.

Dr. Cleeman, of Philadelphia, remarked that he had nothing to add to what had already been stated with reference to sailing-vessels and steamers. The sick with yellow fever were removed to the hospital generally, and the clothing was usually destroyed, sometimes only disinfected. He gave a brief account of cases which originated in Philadelphia from handling cargoes.

Mayor Cobb referred to the spread of yellow fever from dismantling a ship in the port of Pensacola.

Dr. White, of New Orleans, was inclined to agree with Dr. Vander Poel with reference to steamers and sailing-vessels. He regarded the suggestions with regard to the care of the clothing and the bedding, as very proper. He also concurred in the ideas advanced with reference to the treatment of the vessels and the men while in foreign ports and in transit.

Dr. Dowell, of Galveston, Texas, remarked that the vessels which had sickness on board on arriving at that port were retained, but they had no means for unloading ships or disinfecting cargoes.

The discussion then gave way to the reading of a paper by Dr. Chancellor, of Baltimore, Md.

## THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

*Adjourned Meeting, April* 21, 1879.

Dr. A. E. M. Purdy, Vice-President, in the Chair.

### THE RESPONSIBILITY OF THE MEDICAL PROFESSION FOR THE ABUSES OF MEDICAL CHARITIES.

The special order for the evening being the above subject, Dr. F. R. Sturgis gave a brief *résumé* of the discussion upon the same question at an adjourned meeting, held April 14, 1879. The discussion was continued by Dr. D. B. St. John Roosa, who considered two points in the paper presented by Dr. Sturgis. 1. The author of the paper had expressed the opinion that the medical profession was to blame for the present abuse of medical charity, and that there were a great many in the city who could pay a moderate fee for medical services, but who were receiving such service at dispensaries and hospitals without fee or reward to the attending physician. Dr. Roosa thought it was admitted that the evil existed not only in our dispensaries, but also in our large hospitals. Indeed, it had become a feature of some of those hospitals, built with funds which were acquired from the public under the notion that they were charitable institutions, to put apart rooms, that were fitted up sufficiently well to satisfy the wealthiest people in the land, and into which they could admit patients who paid well for their board and medicine; whereas, the medical adviser, in many instances, received nothing whatever for his services. He regarded that kind of management as a fraud upon the dead men and women who gave money to found a charity. The hospital that provided for the well-to-do, without paying the medical adviser, was no longer a hospital in the sense in which that word was understood in this country; it was a boarding-house for the benefit of people who wished to shirk their doctor's bills; and if doctors connived at that kind of charity, they did themselves harm, and their brethren much more harm. The author of the paper was correct in his estimate of the place where the blame should rest; and if the abuse of medical charity was an evil for which the medical profession was to blame, who was to remedy it? Certainly the medical profession itself. Suppose the medical profession of the city of New York should say that, from that time henceforth, as a matter of duty, they would no longer treat a single individual, either in dispensary or hospital, without fee who was able to pay a fee, how long would it be before the abuse would be broken up? The remedy was in the hands of the profession, were we united; but if discordant, we might go on for the next fifty years aiding and abetting the system of treating, in supposed charitable institutions, people who were able to pay for medical services. 2. There was a necessity for unanimity of action. When, two or three years ago, the great eruption in the profession took place regarding the management of a certain hospital in the city of New York, it seemed that almost every member of the profession was upon one side, yet the careful observer could see that the names of certain prominent medical men—men of influence and deserved position—were not with the majority; and one of the astute lawyers, who was upon the Board of Direction of that institution, remarked at that time, "It is not so important as to whose names you have, as to whose you have not." But, as a matter of history, five or six eminent men in the profession, who were at variance with the large majority of their brethren, were able to thwart and practically defeat the effort which, in the opinion of the majority, would have put us twenty-five years further onward in our struggle with Boards of Direction. What did that teach with reference to the present agitation? It taught that we might go to the County Medical Society, secure the presence of gentlemen eminent in the profession, get a vote of 450 to 50 in favor of plans which the majority might advocate, and yet, unless the leaders in the medical profession were united, it would come to naught, and we should simply be where we started, with one *important exception*. The exception was that, although we might fail in the undertaking at the time, we were steadily creating a healthy public sentiment. If we were right in the matter, the agitation would bring about the day when the medical profession would refuse to be dictated to upon subjects which pertained to its own welfare, and upon subjects of which it was fully capable to judge, and we should reach the time when we could demand our common rights. We might not be able at once to eliminate the would-be paupers, who were clothed in purple and fine linen and fared sumptuously every day, but the time would come when only paupers would be treated in dispensaries, and only paupers would be lodged in hospitals.

Dr. Willard Parker gave a somewhat detailed account of what he had seen of hospitals, dispensaries, etc., since the year 1839, when he first came to the city of New York. At that time no trouble of the present kind existed, and the city contained about 312,000 inhabitants. There was one hospital, the New York Hospital; three dispensaries, the Old New York, the Northern, and the Eastern; one Eye Infirmary, and one Insane Asylum. Those institutions—some of them eleemosynary, and some otherwise in

character—seemed to meet the demand. At that time we had but few tenement-houses, and those were held by substantial men, who built them for the accommodation of a few families. In 1845, '46, and '47, came the marvellous immigration to this country from Ireland, and within the space of one decade, from 1840 to 1850, the population of the city increased between two and three hundred thousand. Our population had been steadily increasing from that time until our numbers were now so great that in some parts of the city there were only nine square feet for each person. When the immense immigration to New York took place, the good people of the city were moved by sympathy, and at once commenced to provide for the necessities of the immigrant, and that sympathy led to the establishment of various eleemosynary institutions to meet the demands which charity imposed upon the city. The first new hospital was built about the year 1850, and since that time we had gone on until it was perfectly marvellous how many hospitals, dispensaries, and charitable institutions at present existed among us. We had an immense population, and the charity had grown into almost, in many instances, a curse. There were many people who felt that when they had contributed their money their responsibility was at an end, but it should be recollected that we were only trustees of our money, should be careful that it was placed where it would do good, and not harm, and were responsible for the transaction. Doubtless, there was too much charity bestowed in the city.

There were three kinds of persons who employed a doctor: 1. Those who had means, so that they could pay a physician a small fee; that class was small in comparison to what it was forty years ago. 2. Those who were honestly poor, "God's poor," and for that class he had great respect. 3. Those who were sometimes called the "devil's poor," and of that class there was a large number. The question arose, what could we, as professional men and as *citizens*, do under the circumstances, surrounded as we were by charitable people, charitable institutions, and a large population which were here merely to be supported? Dr. Parker did not see how any relief could be obtained by legislation, nor did he see how either the State Medical Society or the County Medical Society could bring about the desired correction of abuses. The only way of escape which opened up before him was, that *we should help ourselves*. How was that to be done? After discussing at some length the relation existing between the doctor, the taxpayer, and the beneficiary, he remarked that he believed the first thing to be done was for the profession to take care of itself, and let every man stand upon his own foundation. He believed that every man should have his own dispensary. It must be an individual and collective taking care of ourselves. Let every man have his own dispensary, dispense his own medicines, and do his own work. If a committee from the Society could meet the Board of Directors of dispensaries, perhaps some plan might be reached by which these institutions could unitedly be induced to adopt the remuneration system, which met his hearty approval. The plan adopted at the New York Hospital might yet turn out to be a blessing to us, if we looked at it properly.

Dr. Henry remarked that there never was an evil in the world for which there was not a remedy. He was surprised that Dr. Parker advocated that every man should have his own dispensary and dispense his own medicines, for it was a violation of the constitution and by-laws of the Society. The remedy proposed by Dr. Henry was to cut off the supply of doctors by cutting off the supply given to the medical profession for the medical schools. Open the hospitals to competitive examination, and also the dispensaries, and when a vacancy occurred let the position be filled by competitive examination. If the supplies for the medical colleges could be cut off, it would enable the men who were in the profession to live.

Dr. Parker remarked that he did not wish to be understood as favoring the plan of several gentlemen uniting and establishing a dispensary, as suggested in the paper; but rather that every man should do his work in his own dispensary, which was virtually doing his work in his own office at certain hours.

Dr. Jacobi thought that if there was a less number of doctors perhaps we should not have so much reason to complain; that if greater care was taken in recommending applicants for positions as dispensary physicians, a better class of men could be obtained; and that there would be less abuse of the position for the purpose of establishing a private practice over the backs of the poor. The abuse which a large number of doctors connected with dispensaries and college clinics practised, for the purpose of obtaining patients who were able to pay, was well known; and perhaps it had not been spoken of at all. The very fact that there were a large number of men who wished to build up a private practice out of a dispensary practice, was a reason why so many would crowd into dispensaries as physicians who were not qualified to be there. What could be done to correct the abuse? Care on the part of those who were solicited to sign applications for positions as dispensary physicians, and a few plain questions, would rid the ranks of many unworthy applicants. In the German Dispensary, which was about twenty years old, it was a rule rigidly enforced, that every doctor should question every doubtful patient, and in that manner a large proportion of people had been crowded out; and the fact was, that out of a great many thousand applicants for medical advice there were but relatively few who did not deserve the charity. Again, in the college clinics, many applied who were able to pay fees; and he had made it a rule in his own clinic not to prescribe for any such person. One person sent off in that manner, in the hearing of those who had a right to be there, would frighten twenty who were not entitled to the benefit of charity, and they would either leave or not come. Much of the abuse could be corrected if the doctors in those places and institutions would be thoroughly in earnest in the matter.

Dr. Jacobi believed that the proposition to establish dispensaries under the control of any given number of doctors—not a free dispensary, but a paying one, as suggested by Dr. Sturgis—was more dangerous and demoralizing than anything which he had heard against dispensaries. The New York Hospital plan, which allowed any one to go there for *one* dollar a month, was not much worse. All had been opposed to the New York Hospital plan, because *one* dollar a month had been set down as the value of professional services. It was demoralizing to the public; and if there was anything nearly so bad as that plan, it was the plan suggested by Dr. Sturgis. Dr. Sturgis meant to work for *ten* cents a month. Such a plan would be adopted for the purpose of making money; and the dispensary proclaimed that, for five, ten, or fifteen cents, or whatever the amount might be, the best of medical service could be obtained. The public would say at once, "If medical service is worth only *ten* cents, I am not a pauper, and I will pay the doctor what he charges, and I have a

perfect right there." It was the *vast minority* to which Dr. Sturgis referred, that we wished to benefit; but we could not do so by placing any charge upon medical services in a charitable institution. He had frequently thought that it would be better to wipe out the dispensaries entirely, when he looked at the abuse of the charity sustained by both the medical profession and the public.

Dr. Beverley Robinson, for the purpose of correcting some "erroneous statements" which had been made regarding the medical service at the New York Hospital Dispensary, read the following, which could be seen in conspicuous places in that institution: "This branch of the service of the hospital is designed as an efficient means of extending medical and surgical treatment, mainly to the industrial classes. To prevent abuse of the service, physicians will not be expected to treat such patients as have the means to avail themselves of medical service outside."

Dr. Parsons referred to the general use made of the position as a dispensary physician to build up a private practice, and thought it unwise and unjust that the patronage should be distributed as it was. Only the strictly competent and deserving should be appointed to those places. Again, the provident dispensaries were the most improvident, for the reason that, no matter how small the fee might be, the moment a charge was made the physician's services were placed at the mercy of those who gave him patronage. The man who, under such circumstances, prescribed or performed operations, was injuring his professional brethren, because he assisted in cutting off even a moderately fair chance for others to gain experience.

RESOLUTION.

Dr. Roosa offered the following resolution:

"*Resolved*, That it is the sense of this meeting, that the attending physicians and surgeons of the various dispensaries and hospitals should diligently inquire with regard to the financial circumstances of all patients in those institutions, and should refuse to treat those whom they believe to be able to pay small fees."

Dr. Henry indorsed the resolution.

Dr. E. S. Bates sustained the resolution. He believed that it was one step in the right direction, and perhaps others would follow.

Dr. Messinger thought that, if the people were made to take care of themselves, there would be found but comparatively few in this city who were really paupers. He also believed no man should be appointed as dispensary or hospital physician or surgeon who had not proved himself to be the best man for the place. He favored the resolution.

Dr. Parker asked, "How shall the resolution be put into operation?"

Dr. Roosa replied, his idea was that the County Medical Society represented the sense of the profession, and that every loyal member of the profession would respect an expression of that sense. If, therefore, the County Medical Society passed unanimously such a resolution, he thought something would be done towards correcting what by all was acknowledged to be a great abuse and evil. If every dispensary, hospital, and college physician would inquire diligently with regard to every dispensary, hospital, and college patient, and *not* prescribe for those who were able to pay, much could be accomplished towards bringing about the desired reform.

Dr. Parker remarked, that his suggestion would be to appoint a committee from the Society to confer with the Boards of Trustees of dispensaries, with reference to the subject under consideration, and to report to the Society.

Dr. Roosa remarked that he had no objection to Dr. Parker's suggestion as a secondary topic; but let us first say, with an uncertain sound, that we had a right, in spite of all Boards of Trustees, to say that we would not, either in hospitals, or dispensaries, or colleges, or infirmaries, treat patients gratuitously who were able to pay for medical service.

Dr. Roosa's resolution was unanimously adopted, and the Society adjourned.

## NEW YORK PATHOLOGICAL SOCIETY.

*Stated Meeting, April* 23, 1879.

Dr. E. L. Keyes, President, in the Chair.

REPORT OF MICROSCOPICAL COMMITTEE.

Dr. W. M. Carpenter submitted the following report from the Microscopical Committee:

The result of the examination of the specimen presented by Dr. J. W. Howe, at the Stated Meeting, held April 9, 1879, is as follows:

FIBROMA UNDERGOING BONY AND CAVERNOUS CHANGE.

Cuts were made through the substance of the growth in various directions, the results showing that it was surrounded by and made up, to a large extent, of connective tissue, in which were numerous deposits of bone in the form of spiculæ, nodules, and irregular masses. In some portions there were large collections of blood in spaces, resembling those of erectile tissue.

Microscopic examination corroborated the naked-eye appearances. The blood was mostly contained in dilated vessels with extremely thin walls, often closely applied to one another. At some points there was a large collection of lymphoid elements, such as are often noticed in the vacuity of blood-vessels, especially when they have been distended with blood. In most places the fibrous tissue was of the fibrilated variety, and showed no indications of active change. There was no striped or unstriped muscular tissue, and no cartilage. The muscular tissue, which is sometimes found in such growths, had possibly been replaced by the fibrous elements during the slow growth of the tumor. Commencing originally as a fibrous deposit in the inter-muscular planes, it may have undergone a partial change into bone and cavernous tissue. Either of these phenomena has been observed before, but their joint occurrence seems to make the growth unique.

T. E. Satterthwaite.

As a supplement to the above report, the following is submitted: One of the constituents of all sarcomatous growths is blood-vessels. These are sometimes found so abundant as to give rise to a condition that has received the special name sarcoma teleangiectodes and, when present in large numbers, there is great liability to hemorrhages. In the specimen presented blood-vessels were very abundant.

Sarcomata occur between the muscles, on fasciæ, and have their starting-point in the periosteum; and osteoid sarcomata are quite uniformly connected with bones. They are occasionally multiple throughout their course, but generally are single. In the present specimen the growth was connected with the periosteum, but it was difficult to ascertain whether

or not it began as two distinct nodules. It was intimately connected with fascia, and contained unmistakable bone corpuscles.

There is a form of the disease which has been described as *diffuse sarcoma*, and which is seen especially among "the muscles in the female breast and in the testicles." In this form the new-growth takes place in the interstitial connective tissue and at the expense of the muscular fibres, and looks like an infiltration or hypertrophy.

In the specimen presented there was a rather diffuse growth, and in all the sections examined there was a notable absence of muscular fibres.

While the cells have the appearance of fibrous-tissue cells, there is room for the opinion that some of them at least are of a sarcomatous variety, and therefore favor the impression that the tumor is sarcomatous in nature and belongs to the class which contains more than the usual number of blood-vessels.

W. M. CARPENTER.

#### SCIRRHUS CARCINOMA.

The result of the examination of the tumor presented by Dr. A. C. Post, at the same Stated Meeting, is as follows: The growth is made up of an abundant stroma of connective tissue, in which is a network of channels of varying size and irregularly pouched. They contain epithelial elements closely packed together. The channels give precisely the appearance of dilated lymphatics, having the same peculiar pouching which is seen in them. The name scirrhus carcinoma is therefore applicable.

T. E. SATTERTHWAITE,
W. M. CARPENTER.

#### MULTIPLE EXOSTOSIS.

DR. V. P. GIBNEY presented a patient who illustrated multiple exostosis. The boy, æt. 16 years, was exhibited to the Society in 1875, and at that time the interest in his case centred on the existence of an exostosis about the left hip-joint, and giving rise to symptoms of disease of that articulation. During the last four years he had had only one week of pain, which was mild in character. At the present time the bony tumors were increasing in size. They existed symmetrically near the proximal ends of the humerus, the distal ends of the radii, and the heads of the tibiæ, and varied in size from that of a peanut to that of a walnut. There was one on the first phalanx of the index-finger and above the left trochanter major. The joints remained intact, and it was thought that at the age of the patient no great increase could take place.

#### CANCEROUS STRICTURE OF THE ŒSOPHAGUS.

DR. LOUIS ELSBERG presented a specimen of cancer of the œsophagus. Two months previously, the patient came under his observation, when there was a slight contraction of the tube at the level of the cricoid cartilage. Below that point was a stricture that only admitted a sound one-fourth of an inch in diameter. Death occurred from exhaustion, and at autopsy a cancerous mass was found attached to the vertebral column. An opening from the œsophagus to the trachea existed. The debility of the patient contraindicated the operation of gastrotomy.

#### MORBUS CRANIUS — EXCISION OF HIP-JOINT UNDER LISTER.

DR. JOSEPH W. HOWE presented specimens accompanied by the following histories: Joseph Lennis, æt. 19, occupation printer, was admitted to St. Francis' Hospital, March 31st. Three years ago the patient fell down a flight of stairs and struck on his right hip. There was a slight swelling and some pain over the part for a few days afterwards. It gave him very little inconvenience, and he continued at work as if nothing had happened. Twelve months subsequently he began to have some pain and stiffness in the joint, which made him limp. Those symptoms increased in severity to such an extent that he was finally compelled to take to his bed, where he remained under treatment for three months. He was then allowed to go about, and was able to walk without much pain. For a period of five months he suffered but little, but did not put the lame foot to the ground. An abscess formed, which opened on the outside of the joint and had continued to discharge ever since.

On examination, the limb on the affected side was found to be shortened to the extent of nearly two inches. The foot was inverted, and the limb adducted. Considerable pain existed whenever pressure was made around the joint or the limb moved in any direction. Two inches below the upper border of the great trochanter a sinus opened. A probe passed through this touched dead bone in the neighborhood of the joint. As the boy was losing flesh, it was decided to excise the joint. The operation was performed under Lister by an incision just through the walls of the sinus, and afterwards through the tissues two inches above and posterior to the great trochanter. The diseased head of the femur was removed as well as a small portion of the acetabulum. Twelve hours subsequently the temperature rose to 102¼°, pulse 125. Since then pulse and temperature gradually lowered, approximating more nearly to the normal standard. No bad symptoms of any kind had exhibited themselves up to the present time. Two weeks after the operation the temperature was normal and the pulse 104. The increase in the pulse he attributed to the use of stimulants. He attributed the absence of unfavorable symptoms to the antiseptic treatment.

#### STRANGULATED HERNIA.

Jacob Dackerman, æt. 45, was admitted to St. Francis' Hospital, April 10th, suffering from a strangulated femoral hernia. The hernia was nine years old, and caused no inconvenience until four days previous to admission. At that time the hernia became tense and painful, and there was some nausea, but no vomiting. On the fourth day he was admitted to the hospital. He complained of but little pain. Food given him was thrown up, but otherwise his stomach was not disturbed. The day following his admission Dr. H. saw him for the first time. He was then in a state of collapse, and rapidly sinking. Dr. H. opened the sac, and found a large quantity of omentum thickened and congested, and a small knuckle of intestine approaching gangrene. The stricture, which was a Gimbernat's ligament, was cut and the intestine returned. The omental portion of the tumor was cut off, and the stump returned to the abdomen. Death took place six hours after the operation.

The principal point of interest connected with the case was the absence of stercoraceous vomiting and the other characteristic signs of strangulation, which caused the physician in charge to underrate the gravity of the case.

#### FIBROID PHTHISIS—INTRA-PULMONARY RÂLES.

DR. BEVERLEY ROBINSON presented a specimen, of which he gave the following history and remarks:

"The lungs I desire to show you are such as one

finds frequently in the post-mortem room. They are specimens manifesting, in a very evident manner, the lesions of fibroid phthisis. You will remark, however, one or two facts. In the first place, both apices are riddled with cavities, and the walls of these cavities are particularly hard and dense, owing to the great amount of fibrous tissue present. Over the anterior surface of the left lung, in the region of the apex, the pleura is extremely thick. And so intimately adherent one to the other were the visceral and parietal layers of this region that, at the autopsy, they both had to be brought away with the left lung when it was removed from the chest. Now, just before death, this lung was examined by auscultation, and at the level, where the intimate pleural adhesions are seen, there was revealed a large number of fine moist râles. For me, therefore, here is an example which is unimpeachable, where the râles are intra-pulmonary, and not intra-pleural; and, moreover, as the intra-pulmonary condition appears to me of older date than that of the pleura, I believe the pleuritic adhesions followed the fibroid phthisis, and were not the cause of the latter. In view of late important and interesting discussions in regard to "a new classification of phthisis," and also in regard to peculiar views held by the author of that paper about intra-pleural râles, my specimens are not devoid of interest."

### A CHIP OF BRASS IN THE CILIARY BODY.

Dr. Knapp presented an eyeball which he had removed a few days previously. Six years ago a piece of brass had entered the patient's eye through the cornea and lens. After the mild inflammatory symptoms which followed the injury had subsided, the eye gave no trouble for six years. Then suddenly it became so painful and inflamed that it was removed three days after the pain had set in.

The eyeball, opened by an equatorial section immediately afterward, showed the vitreous perfectly clear, though watery; in the posterior part of the retina, a gray scar, a patch of connective tissue of about 2‴ in diameter; the retina everywhere in its proper position. Embedded in the ciliary processes at the bottom of the eye lay a chip of bright metal, 3‴ in length; no connective tissue around it; no inflammatory exudation worth mentioning. From the history of the case, and the autopsy of the enucleated eye, Dr. Knapp thought that the foreign body must have lain encapsulated in the retina for six years, but recently worked itself loose, dropped through the vitreous upon the lowest part of the eyeball, the ciliary body, in front of the inferior rectus muscle, in which locality the foreign body had been found.

### PLASTIC CYCLITIS.

Dr. Knapp presented another specimen—an eye with a dense white pseudo-membrane lining the inner surface of the ciliary body. The eye had been removed from a girl twelve years of age. It had been affected by chronic inflammation for a year; and, when Dr. Knapp saw her first, the symptoms of irido-cyclitis were so marked that the sightless eye, threatening the other by sympathy, had to be removed.

### TUMOR OF PONS AND MEDULLA.

Dr. G. L. Peabody presented a specimen of tumor of the pons and the medulla, with a history as follows:

Mrs. A., æt. 54 years, was an active, well woman up to March, 1878. Then, after a fall, she often complained of weakness in her legs. In May, 1878, she had obscure symptoms from her head and limbs, of which nothing was definitely known. In October, 1878, she came under the treatment of a physician in Boston, who had kindly given a few notes of her case. She then complained of dull headache, mostly at base of brain, slight loss of motion in arms and legs, but no loss of sensation. At the end of October she suddenly fell to the floor without apparent cause. She was obliged to remain in bed four weeks at that time, owing to marked loss of power in her limbs. She was treated by ergot and potass. sod., and improved. The headaches continued as before, but were at times relieved by potass. bromid. At times these headaches were intense. By the middle of December she was greatly improved, being able to write letters, go up and down stairs, and attend generally to duties of life. All this time she still had slight difficulty in raising her feet.

On the 31st of December, 1878, she was brought to the New York Hospital, having made the journey from Boston on that day. She was found dead on reaching the hospital, and had probably been dead about two hours. She had walked that morning to her carriage on going to the railway station.

At the autopsy a tumor was found on the right side of the pons and medulla, and making a deep impression in the cerebellum. Roughly speaking, it was an oblate spheroid in shape, with a diameter of one inch and a half, and an axis of three quarters of an inch. The 5th, 6th, and 7th nerves of that side were compressed by it and considerably reduced in size. It was intimately adherent to the bone, the dura mater having been eroded by it and disappeared. The bone was also eroded by it. The tumor and brain tissue were nowhere intimately adherent. It was soft to the touch, and grayish-red in color, and nowhere gritty or sandy to the touch. On microscopical examination it was found to be a sarcoma, such as was not uncommon within the cranium. It contained many blood-vessels of large size, and was made up chiefly of spindle cells, with some round cells.

### ANEURISM OF THE ARCH OF THE AORTA.

Dr. M. J. Messemer presented a specimen of aneurism of the arch of the aorta, accompanied by the following history:

John T. Morris, æt. 39 years, carpenter, came to him at the out-door department of the Mt. Sinai Hospital, on the 25th of March, 1879. When he entered, a peculiar wheezing sound accompanying his breathing was distinctly noticeable at some distance from the patient, which became more marked as he spoke. He stated that in October, 1878, he was eating an apple while walking along the street, and a seed of the apple entered his larynx. A short time thereafter he experienced shortness of breath. Dyspnœa was especially apparent when he reclined on his back, mounted the stairs, ran, or exerted himself; he had, however, experienced no pain in the chest at any time since then.

On examining him, with Drs. Sanders and Wardwell, the manubrium was found somewhat depressed, being about one-quarter of an inch lower than the body of the sternum. There was a pulsating elevation or tumor immediately to the right of the sternum, about the second intercostal space, several inches in circumference.

On percussion, dulness was revealed over this elevation or tumor. Pulsation could be felt with the hand and was quite apparent to the eye. Slight tympanitic sound was found with the vesicular resonance over the entire thorax. On auscultation a distinct pulsating sound was heard over the region of the tumor. No

valvular lesions existed. Expiration was somewhat prolonged and inspiration slightly shortened. In the interscapular region intensified heart-sounds were observed. On laryngoscoping the patient, he found the vocal cords intact and the larynx and pharynx normal.

On pressing the finger downward behind the top of the sternum, a strong pulsation was distinctly recognized.

Laryngoscopy revealed normal vocal cords. Diagnosis: Aneurism of the arch of the aorta. He administered ten grains of the iodide of potassium three times a day. March 28th: Patient reported greater facility in breathing, and, when speaking, wheeziness was not so apparent as before, but physical signs remained the same. Same treatment continued. April 1st: No change in symptoms. Treatment the same. April 4th: Noticing no further improvement, prescribed infus. of ipecac. ʒss. to ʒviij. April 8th: Patient reported further improvement; administered infus. ipecac., with Fowler's solution, five drops, and iod. The patient returned on the 10th, stating that he felt better, and that his breathing was much relieved, but that he had expectorated small quantities of blood at intervals of every ten to fifteen minutes since the 8th. He expectorated in the doctor's presence several times, and each time blood of a bright red hue was apparent in small lumps, about the size of a bean, with the mucus. He administered morph. acetat. and infus. ipecac., but the patient expired on the following morning at 4 o'clock. His attendant stated that he had been awakened by a noise, as though something was being torn in his chest; immediately thereafter the patient vomited about four quarts of blood, stated that he felt his end approaching and immediately expired.

Autopsy (made Saturday afternoon, April 12th, at two o'clock, thirty-four hours after death, by Dr. Sanders and himself) revealed slight pleuritic adhesions of right pleura. Lungs congested and inflated in appearance. Alveoli dilated. No consolidation in any part of the lungs. Œsophagus intact, and in order. Mucous membrane of the bronchi presented a roughened appearance. The heart structure was normal. The arch of the aorta and upper portion of the descending (thoracic) aorta were distended. Some of the valves were destroyed in effecting a larger opening into the arch of the aorta, so that the aneurismal sac could be better inspected. A quantity of fibrin was detected in the aneurismal sac, and the rupture was found to have taken place into the right bronchial tube about an inch above the bifurcation. The opening caused by the rupture was well marked in the specimen presented. All other blood-vessels connected with the heart or aorta were normal.

The stomach was distended with blood.

The liver and spleen were normal in size, but slightly congested.

Both kidneys showed slight congestion, and there was an infarction in the cortical substance of the right kidney, in the centre of its outer border.

Very little blood was found in the thorax, which small amount might have escaped while the post-mortem was being made.

After rupture occurred, the blood escaped through the right bronchial tube, trachea, and larynx into the mouth, and was mostly ejected in that manner, some, however, running through pharynx and œsophagus into the stomach. The dyspnœa was due to the pressure of the aneurismal sac upon the bronchial tube.

#### FILARIA FROM THE EYE OF A HORSE.

Dr. H. D. Noyes showed a filaria which he had removed from the anterior chamber of the eye of a horse on the day previous. The parasite was first seen in January, and was visible three days. It then disappeared from view for six weeks, and since then, while often visible, it would not be discoverable for several days or hours.

The creature, as seen by Dr. Noyes, was running actively about the anterior chamber, and the horse did not evince any consciousness of suffering. There was decided opacity of the cornea and some ceriumcorneal hyperæmia. The removal was done to prevent increase of corneal opacity. The horse was supposed to be twelve years old. Those filariæ were common in the peritoneal cavity of the horse, and occasionally appeared in the eye.

At the operation, which was done with the help of Dr. Liautard, at the American Veterinary College, the horse was thrown and etherized, the cornea punctured with a lance-knife, and the wound held open as the point was partly withdrawn, so as to cause the aqueous humor to spurt in a gush. The parasite was thus driven out, and lived for an hour after its extraction. It measured two and a quarter inches, or fifty-eight millimetres, in length. Its neck was curved into a spiral, forming one and a half turns, and at the extremity of the head was a minute papilla, from which the name filaria papilli fornix was derived.

Dr. Noyes explained the disappearances of the filaria by supposing that he went through the pupil behind the iris, but did not penetrate into the deeper part of the eye. Since the specimen was presented, the horse had been heard from; the eye recovered from the operation, and the opacity of the cornea had begun to fade away.

## Correspondence.

### VISIT TO BERLIN.

THE EIGHTH ANNUAL MEETING OF THE CONGRESS OF GERMAN SURGEONS—MARTIN'S OPERATION OF EXTIRPATION OF THE KIDNEY—SCHROEDER'S OPERATION OF EXTIRPATION OF THE UTERUS.

By J. MARION SIMS, M.D.

The eighth annual meeting of the Congress of German Surgeons was held at Berlin from the 16th to the 20th April. The meeting, under the presidency of Langenbeck, was largely attended, and every moment of time was profitably occupied. Billroth, Esmarch, and most of the German surgeons whose names are familiar to us, were there, except Volkmann and Hégar. The first was in Italy, the other unavoidably detained at home. The morning meetings, from 9 to 1, were held in the amphitheatres of different hospitals, and were devoted to clinical demonstrations and discussions. The afternoon sessions, held at the University, were devoted to the reading and discussion of papers. I went to Berlin as much for sight-seeing as for the interest I felt in the surgeons and surgery of Germany. I shall not, therefore, write you anything like a synopsis of their doings, but will give you a few items that incidentally came under my observation.

#### EXTIRPATION OF THE KIDNEY.

You remember how we were all electrified, about ten years ago, with the news that the daring, dashing Simon had successfully extirpated the kidney. I do not know how often Simon's operation has been per-

formed; but at home I know that it was done successfully by the late Dr. Gilmore, of Mobile, and by our own George C. Peters. It has remained for Dr. Martin, of Berlin (son of the late Prof. Edward Martin), to open up a new field for and a new method of doing this operation. He has now extirpated the kidney five times—four times successfully. And, strange to say, he has done the operation for what is known as floating kidney. His operation before Listerism would have been wholly unjustifiable. But now it is justified by its simplicity and its success. It is as simple, if not as easy, as ovariotomy, and quite as successful. Certainly so in Martin's hands. I had the satisfaction of assisting at Martin's fifth operation, on the 19th of April. The operation is by abdominal section. Instead of using a single table, five feet long, for his operations, he has two tables, each about two and a half feet long, end to end, one being a little lower than the other. The patient was chloroformed in her own chamber, and then brought into the operating-room, and placed on the table, with the head to the window. The head was on the lower table, the pelvis on the higher one. The head was placed low, with the intention of preventing syncope, the chief source of danger in the use of chloroform. Martin's spray-apparatus is an enormous affair that will work for hours. It was placed six feet or more from the patient, and the spray passed over the assistants, and fell on the patient, not in a dense cloud, but in a sort of mist. It seemed to me to be "too much of a good thing."

The operation was begun at ten minutes to 8 A.M., and was finished in twenty-six minutes. It was done slowly and with great painstaking. The incision was begun about two inches above the umbilicus, and extended two inches below it. The bleeding from the edges of the abdominal wound was arrested, as in ovariotomy, with hæmostatic forceps. The peritoneum was then incised. Some folds of small intestine protruded, and were pushed back and retained by a carbolized sponge probang. The kidney was then pushed to the abdominal incision by pressure on the loin behind, where it was seized with a vulsellum, and securely held. The peritoneum investing it was then opened longitudinally; and the kidney was enucleated and brought freely into the peritoneal cavity. Some large veins on its surface were ligated, and its attachments (consisting of renal artery, renal vein, and ureter with cellular investments) were tied in sections, just as we secure a broad pedicle in ovariotomy. The pedicle (so to say) of the kidney, necessarily running longitudinally with the kidney, about three fingers' width long, was transfixed, and tied with five separate ligatures. The kidney was then neatly dissected away from the pedicle and removed. The pedicle was dropped back into its proper place behind the peritoneum; the peritoneal cavity was then carefully sponged dry; and the external wound was closed with interrupted sutures. The sutures and ligatures were carbolized silk. Antiseptic dressings were applied, and the patient removed to her bed.

I saw her twenty-four hours after the operation. Her pulse, temperature, and expression were good; and I thought she would in all probability recover. But I have since heard from Dr. Martin that she died of peritonitis three days after operation. All of Dr. Martin's operations have been done for floating kidney. Heretofore we have told our floating-kidney patients that they must accept their condition as incurable. Whether we will readily follow the bold example of Dr. Martin, and extirpate floating kidneys hereafter, is a question.

Dr. Martin had his last case under observation four or five months. He had failed to relieve her sufferings in the least. She complained of weight and pain in the kidney; could not work; and yet was obliged to work to make her living. Having exhausted all other means of relief, he proposed the operation, laying before her and her husband its dangers. After due deliberation, they determined to have the operation, being greatly encouraged by the fact that Dr. Martin had already performed it successfully four times.

Dr. Martin says that in one of his cases he had great difficulty in completing the operation. The patient was fat, the abdominal walls loaded with fat, and it was necessary to make a transverse incision to the right from the median line. The kidney was then safely removed; but the first dressing of the wound, a day or two after operation, showed that the transverse incision had failed to unite; it gaped widely open, and for two or three days afterward the liver could be seen at each dressing, moving up and down with each respiratory act. Notwithstanding all this, the patient recovered without a bad symptom.

We all remember Dr. Miller, of East Broadway, who died some ten or twelve years ago, worn out with kidney disease, complicated with abscess and stone in the pelvis of the kidney. He was an able physician, one of the best of men, loved by his friends and patients, and greatly respected by his confrères. When I first knew him, I too was in bad health, hardly expected ever to recover, and my sympathies were naturally drawn to him. His manly form was bent, and his genial face furrowed with the lines of suffering, as he worked bravely on to the last for the relief of the suffering of others, without the least hope of relief for himself. In such cases as this there is certainly a future for Martin's operation. In such a case as this we might cut down on the kidney, as Martin does, and if we found a stone in the pelvis we could remove it, close up the incision with suture, return the kidney to its place, and leave the case to nature's efforts.

### CHOLECYSTOTOMY FOR REMOVAL OF GALL-STONES.

In my paper on cholecystotomy, published a year ago, I urged the propriety of cutting down on the liver, for the purpose of removing gall-stones from the gall-bladder. This operation was done recently by Mr. Bryant, of Guy's Hospital, and the case was to be brought before the Clinical Society of London last week. Mr. Bryant told me a few days ago (May 8th) that the operation was successful, and his patient cured. With the lights now before us, there is no reason why we should not do the same thing for the kidney, if done with antiseptic precautions.

### EXTIRPATION OF THE UTERUS.

The name of Schroeder is well known amongst us. We are all familiar with his classic work on gynecology and with his great success as an ovariotomist since his adoption of Listerism. He is yet a young man, with a splendid record and an assured brilliant future. I saw in his wards an interesting case of extirpation of the uterus for sarcoma.

The operation had been performed about ten days before, and the patient was convalescent. She was nearly forty years old, and had a tumor about the size of an egg in the body of the uterus. A bit of it was scraped out with the curette, submitted to the microscope, and found to be malignant.

Prof. Schroeder then determined to extirpate the organ. He made the incision as for ovariotomy, drew the uterus up from the pelvis; transfixed the

cervix with a double ligature antero-posteriorly, just above the vaginal junction; tied one on each side, including the corresponding part of the broad ligament, just as Péan does; and then he amputated the body of the uterus from the cervix at the os internum. This left a raw surface about an inch and a half in diameter, which Péan and others have been in the habit of pulling outside through the lower angle of the abdominal incision, and fixing it there, as they did the pedicle in ovariotomy. The clamped pedicle and Listerism are antagonistic, if not incompatible. Prof. Schroeder did not wish to leave a sloughing pedicle outside; nor did he wish to leave a suppurating one inside the peritoneal cavity. And he hit upon this happy idea. He exsected the cervix conically from the amputation surface down to the point at which it had been transfixed with the ligatures; and then he brought its thin edges together antero-posteriorly, and secured them with fine interrupted carbolized silk sutures. Thus the incised surfaces were brought into contact internally, leaving only serous surfaces in contact in the peritoneal cavity. It was beautiful in theory and successful in practice; for the patient recovered, with the pulse and temperature remaining very nearly normal all the time.

## LITHOLAPAXY.

To the Editor of The Medical Record.

Dear Sir:—An editorial paragraph in the Record of May 31st mentions that the letter from Sir Henry Thompson to Professor Van Buren, which appeared in the previous issue, was written for publication.

Sir Henry's reiterated criticisms of lithotrites should not be allowed to obscure the main facts, be their value more or less, of Rapid Lithotrity—which means long sittings for the immediate and complete evacuation of the fragments by large tubes, and depends upon the newly discovered tolerance of the bladder to the smooth surfaces of instruments—while the old lithotrity meant repeated short sittings and sharp fragments left in the bladder.

The size of a lithotrite has little to do with lithotapaxy. Stones are so frequently soft and small that a small lithotrite of any kind may be often large enough. Of course the operator will be careful not to break such a lithotrite upon a large or hard stone. Like other lithotrites, mine is made in various sizes. It is not a large lithotrite that I have desired to bring to the attention of surgeons, but a new lock, with protective and non-impacting blades—designed to promote safe and rapid work at a moment when the hand or the attention of the operator is fatigued by a long operation. I prefer a large lithotrite, if it possesses these qualities, even in dealing with common calculi. Sir Henry prefers a smaller one, and frequently withdraws it to clean it. His prejudice against a large instrument is connected with a life-long and erroneous theory that the dangers of lithotrity result mainly from the instruments used in the operation. This was the general mistake of the day. It was not known that the irritation was really occasioned by the fragments which it was the custom to leave in the bladder. When these fragments were drawn out by my apparatus, and that source of danger to the bladder was removed, it was found that the instruments themselves did but little harm. Sir Henry, perhaps, might long ago have discovered this fact of the tolerance of the bladder to instrumentation, if he had possessed any means of evacuating it thoroughly. But he had only Clover's instrument, the tube of which was so small (21 French) that it drew out only sand, and left the fragments. Hence his error, and failure to discover the new facts of what is now known as rapid lithotrity.

Sir Henry devotes the last half of his letter to the expression of creditable sentiments in relation to his attitude towards surgical progress. A little explanation may be here desirable.

A year after the publication of my paper he published a lecture in the *Lancet* (February 1, 1879), in which he says, "My own system has for a long time past been gradually inclining to the practice of crushing more calculus at a sitting, and removing more débris by the aspirator than I formerly did," which might very well be true, his former sittings having been limited to two minutes or less; but the hindrance to his "removing more débris" was the small size of Clover's tube. The editor of the *Lancet* replied (February 15), "We cannot close our eyes to the fact that the views advanced in his lecture of the 1st inst. do involve an abandonment of his old position. Lithotrity as hitherto practised by him, and lithotrity as recommended and performed by Professor Bigelow, are different operations, and based on opposite and contradictory principles." This "editorial observation" in the *Lancet* Sir Henry, curiously enough, chooses to regard, in his letter published in the Record, as "adverse criticism of himself personally, not of his mode of operating."

In this connection Sir Henry expresses the opinion that the terms "abandonment of position," and the like, "adapted, as they are, to military men," do not accord with the aims of men who "'live and learn.'" . . . . . "It is an error," he says, "to look for a life-long consistency in matters of opinion from men who think for themselves." The world will not question the right of Sir Henry to "live and learn," nor to "think for himself," but only the propriety of his claiming to have originated by "thinking for himself" ideas he has learned from others.

A friend has to-day sent me the fifth edition, just published, of Sir Henry's "Diseases of the Urinary Organs." I find that in this edition Sir Henry both honors Rapid Lithotrity with his indorsement and appropriates as his own its essential details.

He adopts large tubes, increasing the ineffectual catheter of Clover from 21 to 29, which latter calibre I often employ, my usual size being 30, and my largest 31. "You are first to introduce," he says (p. 173), "an evacuating silver catheter fitted with a flexible stylet—in size, say, from No. 14 to No. 16, English scale:" calibres equivalent to 24 and 29 French.* Here being the essential feature of the operation, Sir Henry at this point definitively abandons "consistency" and the 21 tube of his previous editions, in favor of "large evacuating catheters and a good aspirator" (p. 177). Neither of these he used before I described them. This gives him the key to Rapid Lithotrity, and he is able to accomplish thorough evacuation at once by prolonging the sitting till evacuation is complete, demonstrating at the same time that the bladder toler-

* Handerson's comparative scale, from which these equivalent numbers are taken, is made by Reynders & Co., New York. It is accurate, and very convenient in having, instead of holes, a long triangular slit like a wire gauge. "In England," says Sir Henry Thompson, we cannot be said to have a uniform scale; all our measurements are very arbitrary. One maker has one scale, and another another." ("Diseases of the Urinary Organs," 1879, p. 47.) On page 48, however, he gives a scale, of which the largest size, 14, is the equivalent of 24; and this corresponds to Handerson's Scale. (New York Medical Record, 1877, p. 638.) The French numbers increase more rapidly than the English. Larger calibres have hitherto been but little known either in France or England. The main point is the necessity of enlarging Clover's tube.

ules instrumentation, if the fragments are removed—which is the new principle that underlies Litholapaxy. The large tube once appropriated, the rest is easy. The aspiration of his new edition means effectual aspiration with large tubes, and his Lithotrity becomes Rapid Lithotrity.

A comparison of this, Sir Henry's present practice, with his recent opposite teaching of frequently repeated crushings—each confined to a few minutes, lest the instrument injure the bladder, but leaving the bladder nevertheless to struggle, in the intervals, with debris which he had no means of extracting—will show the significance of the criticism by the editor of the *Lancet*.*

In conclusion, I may venture to hope that the valuable example set by Sir Henry in accepting large tubes will aid in doing away with whatever apprehension still exists of danger from their use.

HENRY J. BIGELOW.

BOSTON, MASS.

## EMPYEMA TREATED BY ASPIRATION AND BY OPEN INCISION, WITHOUT INJECTIONS.

BY JAMES J. HEALY, M.D.,
AND
E. P. HURD, M.D.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Two cases of empyema, under the care of Dr. J. J. Healey, have terminated successfully: the first after two aspirations with a Dieulafoy aspirator; the second, after making a permanent opening into the thoracic cavity, from which pus exuded almost constantly for more than a month.

CASE I.—J. C., aged 40, unmarried; an intemperate man; day-laborer by occupation; broken down by bad habits. Came under Dr. Healy's care in January last. The patient suffered for some ten days from fever, with pain in right chest, dyspnœa, and prostration; fever assumed a hectic type, with profuse sweats. Dr. E. P. Hurd was called in consultation. The diagnosis of the attending physician—pleurisy of the right side, with effusion—was confirmed, and the necessity of immediate aspiration concurred in. Pulse was then 130; fever-heat 103; respiration 40 per minute, and performed with much distress. There was decided bulging of the thorax posteriorly and in right infra-axillary region, and dulness all over the base of right lung, and loss of respiratory movement and murmur. Respiratory sounds on the left side were normal, but exaggerated. The patient could lie only on the affected side.

The aspirator needle was introduced between the eighth and ninth ribs, on a line with the inferior angle of the scapula, and a pint of laudable pus withdrawn. This gave great relief to the patient, who commenced forthwith to mend. The aspiration was repeated the week following, but only a few ounces of pus were withdrawn.

The subsequent history of the patient is one of uninterrupted recovery.

CASE II.—The treatment of this case coincides in a marked manner with that of Prof. Post, recorded in the RECORD for April 5, 1879. It illustrates the safety with which, in cases of empyema, a permanent opening, whether by knife or trocar, may be made into the thoracic cavity.

M. D., a child of three years, was taken ill with pleurisy about the 1st of February. Dr. Healy saw the patient about the 14th, and diagnosticated pleurisy with effusion. Pulse 110; respiration 48; temperature 103°; decided bulging of right side; left laboring heavily; right side almost motionless; patient lies on the sound side and back; dyspnœa; marked hectic.

Percussion indicated great dulness over whole of right chest, front and back, below level of nipple; left lung was abnormally resonant throughout. Auscultation gave no respiratory sound over right base; on the left side the respiratory murmur was puerile. Above the line of dulness, on the right side, there was bronchial breathing.

Dr. E. P. Hurd saw the patient in consultation, and concurred in the diagnosis and the mode of treatment demanded. At this time the pulse was 160 and feeble, and the dyspnœa was extreme. The aspirator needle was introduced between the seventh and eighth ribs, just in front of their angle, and eight ounces of laudable pus were removed, to the great relief of the little patient.

On March 4th the aspiration was repeated, the right chest being full of fluid, and the dyspnœa being urgent. Thirty ounces of pus were withdrawn, with signal relief to the suffering child.

On March 7th, the pleural cavity being again oppressed by a purulent collection, Dr. Healy made a permanent opening between the ninth and tenth ribs, on a line with the inferior angle of the scapula, dissecting his way into the thoracic cavity with a common bistoury; a gush of matter followed, which was somewhat fetid. A fistulous opening remained, which only required to be occasionally cleared out by means of a probe. Carbolic dressings were applied. Pus flowed intermittingly for more than a month. By April 15th it had ceased to run, and the fistulous opening closed. Some little deformity ensued by retraction of the ribs of the affected side; but the lung has been fast regaining its normal position and function. The child is now apparently as well as ever.

NEWBURYPORT, MASS.

## GRINDELIA ROBUSTA IN RHEUMATIC AFFECTIONS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Some time ago I noticed in several of the medical journals suggestions as to the use of grindelia robusta in asthmatic affections. I took occasion to make use of this remedy, and found that although in some cases a certain degree of benefit was perceptible, yet it by no means equalled the results I had been led to anticipate. The thought occurred to me that it might be well to couple with it some preparation of yerba santa, this having acquired considerable reputation of late in the treatment of bronchial affections. Accordingly, the next time asthma was submitted to my care, I prescribed as follows:

℞. Elixir grindelia robusta..... ℥ xij.
Glycerole of yerba santa..... ℥ iv.

M. et Sig. from two teaspoonfuls to one tablespoonful four times a day.

The result exceeded my most sanguine expectations, and I will give the brief details of three cases:

CASE I.—Mrs. L. M., aged 37, had suffered from asthma fifteen years. During this period she, like almost all asthmatics, had tried many remedies with

* The *Lancet* of May 17 contains a letter on this subject.

no practical relief. Coming to me August 4, 1878, I gave her the medicine to which I have just referred. Before commencing treatment she was robbed of the latter part of almost every night's rest. About two o'clock in the morning the sitting posture, and the smoking of a preparation for the relief of dyspnœa, became imperatively necessary. The loss of sleep consequent upon these procedures had their legitimate effect upon her system. Emaciation and general debility followed, and her careworn and anxious countenance plainly indicated the suffering she was undergoing.

The first night the medicine was taken refreshing sleep till six o'clock in the morning resulted. From that time to the present she has not lost a night's rest from this cause, nor felt more than a very slight indication of a return of asthma, notwithstanding she has suffered in the interim several times with a severe cold. She has gained flesh, is much improved in general health, and says the medicine has been and is to her of invaluable worth.

CASE II.—Mrs. L. P., aged 32, was an asthmatic for ten years. Emaciation was very marked, her rest habitually broken, and her bowels were obstinately constipated. Coming to me November 4, 1878, I gave her the grindelia robusta and yerba santa. During the first two days the relief was slight, but improvement then became decided. At this juncture the breaking up of housekeeping caused a severe and continued cold, and her asthma became nearly as bad as ever. The remedy was continued, however; the patient recovered from the attack, and has not felt any indications of a return of her malady up to the present date. Her bowels have become regulated, and her general health and emaciation very much improved.

CASE III.—Mrs. A. V., aged 50 years, an asthmatic for eighteen years. She had been so intense a sufferer as to become a confirmed morphine eater; she commenced the treatment already referred to December 4, 1878. Immediate and (up to the present time) permanent relief was obtained. I would remark, incidentally, that her morphine habit has also been cured, and I regard the manner in which it was accomplished of sufficient interest to merit passing mention. Her husband invariably purchased the drug for her; I took advantage of this fact to empty the contents of a bottle of morphine, extract a little of it, and substitute in its stead the same quantity of quinine. After mixing them thoroughly, they were carefully replaced in the bottle, and Mrs. V. kept in ignorance of the change. During the first few days her symptoms were very distressing and even alarming. Recovery, however, soon occurred, and every time morphine was purchased I lessened its quantity and increased the quinine until at last she was taking clear quinine. At this juncture the deceit was made known to her, and inasmuch as she had not suffered from asthma for a long period her good sense impelled her to discontinue the use of both morphine and quinine.

From the gradual reduction in the quantity of morphine and the similarity in the taste and appearance of the two drugs her suspicions were not aroused. With the exception of a few days during the latter part of the treatment, she made no complaint of tinnitus aurium; and the quinine, acting as a tonic, to a large extent improved her general health.

I think this case is interesting, not only as regards the relief from asthma, but from the possibility in this manner of breaking up the morphine habit.

It is not necessary to cite more instances; those already given are but fair illustrations of other cases in which I have used the remedy. I have prescribed it about twenty times, and in only two instances (and these were cases of a very complicated nature) where patients have followed my directions has it failed in producing good and (up to the present writing) permanent results. After the medicine has been taken in large doses for a few weeks the quantity may be gradually reduced, and at last altogether discontinued. I have noticed in some cases that considerable nausea and looseness of the bowels were temporarily produced.

FRANK ALLPORT, M.D.

SYCAMORE, ILL., May 24, 1879.

## "TREATMENT OF OBSTINATE VOMITING BY SMALL DOSES OF IODIDE OF POTASSIUM."

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Having noticed in the RECORD of March 15th, under the above heading, an article taken from a statement made by Dr. Formica Corsi in the "Gazette Obstetricale," and having a patient suffering from obstinate and intractable vomiting arising from spinal inflammation, and having exhausted all the remedies ordinarily employed as anti-emetics, without the least amelioration in the symptoms, I determined to try the iodide in the minute doses recommended by Dr. Corsi. The vomiting had occurred immediately after taking food of any description, quantity and quality making no apparent difference. Vomiting occurred with very little effort, nausea persisting for only a short time after the contents of the stomach had been entirely rejected.

This state of things had existed for at least two months, in which time she had retained only an occasional mouthful of food.

After the use of injections of beef-tea and egg for several days, during which time nothing but a little drink was allowed by the stomach, one or two meals were retained, but the vomiting commenced again, and continued up to the time of the administration of the iodide. I gave it in solution, in doses of $\frac{1}{16}$ grain, repeated every hour and a half; and since then—now fourteen days—she has retained everything she has taken, excepting one or two meals, when she had omitted the drug for a few doses, at my request, as a test.

Respectfully yours,

GEORGE HUNTINGTON, M.D.

LA GRANGEVILLE, N. Y., May 4, 1879.

# New Instruments.

## A REMOVABLE PAPER BRACE FOR THE TREATMENT OF POTT'S DISEASE AND LATERAL CURVATURE.

BY AP. M. VANCE, M.D.,

OF NEW YORK.

THE use of paper in the treatment of spinal disease first suggested itself to me while a student in the University of Louisville, in the summer of 1877. During the year preceding I had been using the plaster jacket in all forms of spinal disease. The chief objections to the plaster, viz., its weight, imperviousness, liability to break down easily, necessitating frequent reapplication, and the difficulty of removing the same, I thought might be overcome by some removable dress-

ing, which secured the same support and at the same time would prove to be far more durable. I had seen in the practice of Dr. Cowling the use of the paper in fracture splints, with results in every way satisfactory.

The great obstacle in the way of using the paper for the spine was, that it could not be applied directly to the body, on account of the time required for hardening, and the yielding of soft parts. A smooth dressing without wrinkles was next to impossible. To overcome this objection, I first constructed the brace over a plaster-jacket which had been removed from the body. The jacket thus made being, of course, somewhat too large, a vertical section was removed in front and behind; the parts then being brought together and laced like a corset.

This division was deemed necessary, as it was not supposed that the dressing would be elastic enough to open sufficiently to admit the patient's body without breaking. After two or three attempts this was found to be quite superfluous. The jacket made over the plaster, itself not an accurate cast of the body, necessitated padding at different points in order to secure an easy fit. It occurred to me then that the plaster-jacket first taken, might be filled with the mixture of plaster, and this having been allowed to set, the external jacket then removed, a perfect cast of the body could be obtained. This was easily accomplished and a perfect fit secured. Up to this time I had been using the egg and flour paste, but the hot weather effected such changes in this, that a disagreeable odor was developed. In connection with Dr. Vincent Davis, a prominent chemist of Louisville, I experimented with the view of obtaining a glue, as a substitute for the paste, not open to the above objections. A mixture of white glue and oxide of zinc we found to answer the purpose admirably.

Dr. D. W. Yandell, whose student and assistant I was at that time, early recognized the superiority of the paper over the plaster-jacket, and adopted this in the treatment of all spinal cases. These were under my own immediate care, and I take this opportunity of publicly thanking my preceptor for the opportunities he afforded me of testing the appliances thus constructed. The practice thus afforded me in Dr. Yandell's office and at his clinics extended over a period of nine months, and I had abundant clinical material on which to make observations.

In the beginning of 1878, one of his patients, wearing the new paper brace, visited Chicago, and there came under the observation of Dr. Edmund Andrews, who was so favorably impressed with the dressing that he wrote to Dr. Yandell for a description of its construction. By request, I wrote a description, which was forwarded to Dr. Andrews, who has recently made reference to its advantages in the April No. of the Chicago *Medical Times and Examiner*. In the spring of 1878 I gave a demonstration of its construction and application before the Kentucky State Medical Society, then in session at Frankfort. About the same time, at the request of Dr. Lewis A. Sayre, I forwarded to him a jacket and head-spring complete, accompanied with a full description. In a letter under date of May 19, 1878, acknowledging its receipt, he makes two objections, viz., imperviousness and cost, which I shall refer to at the conclusion of this paper. Since that time I have used the brace in my own practice at Louisville, with such modifications and improvements as have suggested themselves to me from time to time. The most important changes were the introduction, between the layers of paper, of narrow, vertical steel springs, adding greatly to the strength of the brace, and enabling me to dispense with several additional layers of paper, thus greatly diminishing its weight and bulk; extensive perforation of the brace, which thus secured ventilation without materially diminishing its strength; and further modifications in a manner to be hereafter described, to make it efficient in lateral curvature. The method of making the brace is as follows: An ordinary plaster-jacket of good length is first applied, especial care being necessary to secure a smooth inner surface. By adding a tablespoonful of alum to the quart of water used, the plaster can be made to set much more quickly, so that it can be removed almost immediately. This is done by cutting down in front. Having brought the cut edges together and fastened them with twine, the jacket is placed on a table and made water-tight by plastering around the base and up the incision in front.

The plaster mixture, of the consistency of thick cream, is now poured in until full. By partially filling with bricks, before pouring in the plaster, much less will be needed. In ten or fifteen minutes the external jacket can be removed. This must be done with care. Any slight irregularities in the cast must be smoothed off with a knife. Thus prepared, it is thoroughly greased; the object being to confine the moisture still in the plaster, which might otherwise greatly retard the drying of the paper-jacket. Over this an ordinary roller is applied, which separates the jacket from cast, thereby protecting it from the grease, and giving a smoother surface.

Then canton flannel fitted smoothly over it, by tightly stretching, and secured by seam in back, forms the inside of the brace. To this the glue is applied with a brush. The following is the formula used: White glue, one part; oxide zinc, two parts; hot-water, six parts. Dissolve the glue in the water, and add the oxide of zinc, which should be finely pulverized. This will keep indefinitely, and is ready for use on reheating. Brown manilla paper of moderate weight—such as is used by mechanical draughtsmen—is cut in strips one and a half inch wide, long enough to reach a little over half-way around the cast, and applied horizontally, beginning at bottom of back, lapping each strip half-way; each strip having been previously coated with the glue. Having finished the back, cover the front in the same manner, lapping ends at sides, so as to give additional strength where most needed. Narrow steel-springs—those in ordinary hoop-skirts will answer—cut a couple of inches shorter than the cast, are placed vertically at intervals of one and a half inch; these being made to fit to the cast accurately by wrapping around the whole strong linen thread. Then another coating of glue, and the second layer of paper strips; this time being placed vertically, and lapping as before. A few turns of thread around this will secure accurate adaptation; over this another coating of glue, and lastly a roller, which must be drawn very tightly, and smoothly applied. This, covered with glue, forms the outside of the brace. It requires from twenty-four to forty-eight hours for this to dry, though much more quickly in the sun. It is then ready for removal, which is accomplished by cutting down in front and springing off the cast, with a small wad-cutter—or better, an ordinary belt-punch; this is perforated to any extent desired, care only being necessary to avoid the steel springs.

Leather strips, half an inch wide, with metal eyelets one inch apart, are sewed half an inch from edge in front, and laced with double lacing like a corset. This I have found to be the best way of securing the brace in front.

The brace is now lined neatly with canton flannel,

nap side out, or better material can be used if desired, linen answering well in summer. This can be renewed whenever cleanliness requires. It is well to let the lining extend an inch or more beyond the middle on one side, so as to form a tongue behind the lacing. The brace is now complete, as shown in Fig. 1. It

FIG. 1.

should be worn over a thin, tightly-fitting knit shirt, and is applied by springing open enough to admit the patient's body. The application of the brace to lateral curvature is somewhat different. The patient is first completely suspended, according to the method so fully described by Dr. Sayre; the object being to overcome the deformity as much as possible before applying the primary jacket. From this the solid cast is obtained, as above described. This represents the best possible position which the body can be made to assume. The wearing of a paper-jacket made over this cast would have the effect merely of retaining the advantageous position secured by the suspension, like the use of the plaster-jacket for a similar purpose; but would be of no avail in overcoming the deformity which still remained. This last can only be effected by some force acting continually upon the convexity of the thorax in such a manner as still further to straighten the spine. The power made use of in this case is produced by a band of sheet rubber (such as is used in making Martin's bandage), six inches square, which is sewed to the brace in front and behind, as shown in Fig. 2. So that when the brace is applied to the body, this band stretches tightly over the convex side of the thorax. In order that this force shall not be resisted by the opposite wall of the brace, a space must be left between the body and brace on the side of the concavity. This is secured by a slight alteration in the solid cast by filling out with plaster the depressions on this side, so as to make the contour of the cast regular. The amount of force can be regulated by varying the length and grade of rubber used. With these modifications, the brace for lateral curvature is constructed and applied precisely as in Pott's disease, previously described.

The chief points which recommend this brace to general use are the following:

I. All the advantages claimed for this plaster are secured without the objectionable features of:

1. *Weight and Bulk.*—The paper brace weighs from 8 to 16 ounces, the plaster-jacket from 3 to 6 pounds.

FIG. 2.

The plaster is from one-quarter to three-quarters of an inch thick; the paper rarely more than one-eighth of an inch, besides being an accurate model of the body. A dress can be fitted over it as smoothly as over an ordinary corset; a great advantage in the eyes of the mother, however much a doctor might ignore it.

2. *Imperviousness.*—Without stopping to discuss the question whether the plaster absorbs bodily moisture or allows it to pass through, it is certainly greatly inadequate to the needs of the body. The paper brace as first made without perforation was open to the same criticism. As now made, ventilation can be secured without loss of strength.

3. *Friability.*—A plaster-jacket will ordinarily last only four to six weeks before it begins to crumble, and is no longer efficient as a support. A well-made paper brace will last six months. In two instances, patients of mine wore braces eight months, when they were removed because the patients were well, the braces being still in good condition.

4. *The difficulty of securing a perfect fit.*—It is next to impossible to prevent irregularities on the inner surface of the plaster, because it is applied to the soft parts which are yielding. Two or three removals and reapplications are often necessary before one which the patient can wear is obtained. The paper jacket is made over a model which is at the same time firm and smooth, its inner surface consequently must be perfect. The same cast can be used repeatedly until the patient outgrows the brace.

5. *Difficulty of constructing a plaster-jacket which can be removed and reapplied at will.*—The paper brace can be taken off and adjusted as easily as a steel support, so that it is hardly possible for excoriations or abscesses to form without the surgeon's knowledge. Yet when it is applied and laced it secures as perfect fixation and rest for the parts as is obtained by the plaster. It also admits perfect cleanliness, the impossibility of which in the plaster is perhaps the strongest objection to its use.

II. The value of the brace lies in its adaptability to the need of the general practitioner in any part of the country. All the materials required are readily obtained; these are, plaster-of-Paris, materials for glue, paper, steel springs, bandages, and canton flannel. The brace, complete, can be made and well finished for one dollar and twenty-five cents ($1.25) or even less, the expense depending entirely on the amount of

finish. With a little experience the whole brace, excepting the time required for drying, can be made in an hour and a half.

III. The paper brace is believed to meet the indications in lateral curvature by a dressing more simple and efficient than any yet proposed.

In conclusion, I would say that the brace has now come into general use in Louisville and vicinity; the results obtained with it being such that, in the practice of the leading surgeons, it has almost entirely superseded the plaster.

Through the kindness of Dr. Knight I have, during the last few weeks, applied it to a number of cases at the Hospital for Ruptured and Crippled, and I hope soon to be able to establish, by statistics, the value of the brace. It is still open to many improvements, which further experience in its use will doubtless suggest. The desire to perfect it as far as possible has been my reason for not presenting it to the profession before.

135 E. 42D STREET.

## A NEW FEEDING-BOTTLE FOR PREMATURE, FEEBLE, OR INVALID INFANTS.

BY A. JACOBI, M.D.

[From Vol. I. of Wm. Wood & Co.'s forthcoming Treatise on Hygiene and Public Health.]

DAILY experience shows that new-born babies find little or no difficulty in sucking. Those who are not able to nurse will owe this incapacity to either muscular debility or to some other anomaly. Muscular debility may depend upon premature birth, or result from sickness and insufficient convalescence.

Another cause of inability to nurse may exist in dyspnœa, from either insufficient expansion of the pulmonary tissue, or from congenital or acquired disease of the lungs, or from heart disease.

Inability to nurse may also depend upon malformations. Not so much upon simple, uncomplicated hare-lip as upon double hare-lip, complicated with fissure of the palate. It very rarely depends upon anchyloglosson, now and then upon hypertrophy of the tongue, or upon ranula. In rare cases it also depends upon pseudoplasms of the tongue. I have myself described a case of congenital sarcoma of the tongue in the American Journal of Obstetrics, etc., August, 1869.

Nursing may also be interfered with by either simple or syphilitic nasal catarrh, giving rise to an accumulation of mucus, or blood, or mere thickening of the mucous membrane. Also by different forms of stomatitis—not only the thrush of the new-born and very young infant, but also by the erythematous and follicular stomatitis of the infant of more advanced age. To relieve children suffering from this difficulty of sucking, a nursing-bottle has been invented in France, and brought into the market under the name of "Biberon Pompe." I first gave publicity to this instrument on page 413 of the first volume of Gerhardt's Handbuch der Kinderkrankheiten, 1877, where I reported that a specimen of the apparatus in my possession was presented to me by Dr. O. Soltmann, of Breslau. Since that time Dr. Soltmann has modified the instrument to a certain extent, and published an account of it in an article entitled "On the Nutrition of Sick Nurslings by Means of a New Nursing-Bottle," Jahrbücher für Kinderkrankheiten, etc., Vol. XII., 1878, p. 406. The accompanying woodcut shows that a glass tube inside the bottle carries a small soft-rubber funnel, which is changed into a valve by means of an oblique cut through one-half of its body. Simple pressure upon the mouthpiece, either by the lips or by the alveolar processes, or by the fingers, is sufficient to cause the liquid to escape from the bottle. In cases in which the baby is not able to exert even this pressure, the slightest pressure upon the bulbous expansion of the tube, seen in the woodcut, on the part of the attendant, is sufficient to propel the liquid food into the mouth of the child. The apparatus is

*A*, air-hole; *B*, mouth-piece; *C*, expanded part of sucking-tube *D*, funnel-valve.

to be recommended in just such cases as enumerated above, not only upon theoretical reasons, but from results derived from actual trial. About a year and a half ago, when I first exhibited the instrument before the New York Obstetrical Society, I had occasion to direct the management of a prematurely-born child with insufficient muscular development; and the infant was fed for months from this bottle, and thrived well.

In a case of spinal meningitis, occurring in an infant, and rendering it unable to suck, this bottle was used successfully; and the same can be said with reference to a serious case of follicular stomatitis, in which nursing was an impossibility.

The feeding-bottle can be obtained of Reynders, cor. Fourth Ave. and Twenty-third St., of this city.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 8 to June 14, 1879.*

MCKEE, J. C., Major and Surgeon Medical Director, Dept. of Arizona, after inspection of post hospital at Fort Yuma, granted leave of absence for one month on surgeon's certificate of disability, with permission to go beyond limits of the dept. S. O., 64. Dept. of Arizona, May 31, 1879.

BIART, V., 1st Lieut. and Asst. Surgeon. The sick leave granted him from Hdqrs. Dept. of the Missouri extended one month on surgeon's certificate of disability, with permission to leave the Dept. of the Missouri. S. O., 137, A. G. O., June 11, 1879.

COLUMBUS MEDICAL COLLEGE.—Dr. D. Tod Gilliam, of Columbus, O., writes the reason why the Columbus Medical College became dismembered, and maintains that the statement made in the May number of the Ohio *Medical Recorder* has no foundation on fact. We hope no permanent damage will be done to either party, although it may be that both have unintentionally injured each other's feelings. "A soft answer turns away wrath, and grievous words stir up anger."

# Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending June 14, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| June 7, 1879. | 0 | 6 | 101 | 2 | 54 | 23 | 6 | 0 |
| June 14, 1879. | 0 | 11 | 114 | 2 | 65 | 24 | 12 | 0 |

MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.—Dr. James L. Little, formerly of the College of Physicians and Surgeons in this city, also Professor of Surgery in the University of Vermont, has been appointed Clinical Professor of Surgery, *vicè* Dr. Joseph W. Howe, resigned.

NEW YORK SUPREME COURT.—Decision of Justice Lawrence in the case of Mary Ann Proctor against the Manhattan Eye and Ear Hospital, May, 1879.

LAWRENCE, J.—It appears that the defendants were organized under an act of the Legislature as a corporation, in the year 1869, and the object of the corporation is declared, in the second section of the act, to be the establishment of a hospital in the City and County of New York, for the treatment of indigent persons suffering from diseases of the eye and ear. The fourth section of that act provides that the Board of Directors shall have power to enact by-laws and regulations for the conduct of its officers and not inconsistent with the constitution and laws of this State. This is the language of the statute:

"*Fourth.*—No alteration or amendment of the by-laws, nor any addition thereto, shall be made except by a vote of a majority of the Board of Directors. The Board shall be convened for such special purpose by a notice to each Director, expressing the proposed alteration and amendment or addition, and the yeas and nays shall be taken and recorded in the book of minutes on each question, and shall elect by ballot, in case of vacancy, surgeons of the hospital, and appoint such other surgeons, agents, and servants, as they may deem necessary to transact the business of the said corporation, and designate their duties.

"*Fifth.*—The Board of Directors shall determine the qualifications for membership of the said corporation, and persons duly qualified shall be eligible for Directors in case of vacancies occurring in the Board.

"*Sixth.*—The corporation shall possess the general powers, and be subject to the general restrictions and liabilities prescribed in the third title of the eighteenth chapter of the first part of the Revised Statutes."

Under those provisions of the Revised Statutes, if my recollection is correct, the corporation is made subject to the visitatorial power of the State, which may be put in motion by the Attorney-General or other appropriate officers. After as careful and deliberate a consideration as I have been able to give to this case, I am of the opinion that the effect of that act is to create a public corporation, or, if not absolutely a public corporation, a quasi-public corporation of a charitable nature, and I am, therefore, free to say that I cannot, after such consideration, distinguish this case from the case which has been referred to, the case of *James McDonald vs. The Massachusetts General Hospital*, 120th *Mass., p.* 423, in which the court sitting in bank, in an opinion delivered by the present Attorney-General of the United States, and apparently concurred in by each and every member of the court, distinctly holds, "That a corporation, the object of which is to provide a general hospital for sick and insane persons, having no capital stock, nor provision for making dividends or profits, deriving its funds mainly from public and private charity, and holding them in trust for the object of sustaining the hospital, conducting its affairs for the purpose of administering to the comfort of the sick, without expectation or right on the part of those materially interested in the corporation to receive compensation for their own benefit, is a charitable institution.

"The fact that a corporation, established for the maintenance of a public hospital, by its rules requires of its patients payment for their board, according to their circumstances, and the accommodations they receive, and that the trustees of the hospital determine who are to be received, do not render it the less a public charity."

Each and every one of those features, it seems to me, exists in this case, and on the facts, as well as upon the law, I again say I am unable to distinguish the case at bar from the case which I am citing. The court further held in that case, that a corporation established for the maintenance of a public hospital which has exercised due care in the selection of its agents, is not liable for injury to a patient, caused by their negligence, nor for the unauthorized assumption of one of the hospital attendants to act as a surgeon. Now, I do not think it can be contended for a single instant in this case that there is any proof whatever that the surgeons who attended the plaintiff, and who have been made the subject of criticism and complaint on this trial, were not skilled in their profession. We have had before us the most eminent men in the medical and surgical profession in the city of New York, and their testimony has uniformly been to the effect that Dr. Loring, Dr. Roosa, and Dr. Agnew were men who were not only highly skilled in their profession, but most pre-eminently so. There is no proof to the contrary on the other side; not a single medical witness, or surgical witness has been produced who has ventured to say that this operation was not a proper one, and was not properly performed. The only witness who has—I will not say assumed to criticise the operation—but who has spoken of the operation, was the husband of the plaintiff, who stated that he saw a watery substance run down the cheek of the plaintiff at the time the operation was performed. Of course, the evidence of a layman, as opposed to the evidence of all these professional men is no evidence whatever to go to a jury, and I find it my imperative duty, therefore, having determined that this is a public charitable or a quasi-public charitable corporation, to hold that it has complied with all the duties which the Supreme Court of the State of Massachusetts, when a similar case was presented to them, determined that a corporation should perform and exercise. Indeed, I regard the case before the Massachusetts Supreme Court as much stronger against the defendant in that case than this case is against the defendant here. There, "The plaintiff on December 9, 1870, fell from a building on which he was at work and his thigh-bone was fractured, and on the same day he was brought to the hospital of the defendant, and there remained in one of the wards until February 4, 1871, when he went away. While in the hospital he had gratuitously the surgical and medical care, attendance, and nursing which the hospital affords to its patients; he occupied a free bed, and all the expense of his medical and surgical treatment and nursing, and of his shelter, warmth, food, washing and bedding, were borne as a charity by the defendant. The house pupil, appointed as provided in the by-laws, and who in the first place set his fractured thigh-bone, and continued while the plaintiff was in the hospital to attend to the plaintiff's case under the direction of the attending surgeon, was a member of the Harvard Medical School, in the last three years of his professional study, and received his degree of M.D. from Harvard College in the following June, 1871; the attending physicians and surgeons recommended him for his post, and the visiting surgeon, who had direct charge of the treatment of the fractured bone, and under whose direction and supervision the house pupil acted in his treatment of the plaintiff's fracture, was a man of the highest professional reputation and skill; the said house pupil and attending surgeon treated the plaintiff's case gratuitously, and according to the regulations of the Massachusetts General Hospital.

"The treatment of all cases in the hospital is by the visiting physicians and surgeons, and the house pupils acting under their direction, each officer having the exclusive care and control of all patients assigned to them, and such physicians and surgeons acting gratuitously, the defendant providing for patients without means, like the plaintiff, the hospital nurses, bed, food, warmth, and other comforts gratuitously; such visiting physicians and surgeons are practitioners in the city of Boston, outside of the hospital, and are selected by the trustees of the hospital to treat gratuitously patients who come to the hospital for gratuitous treatment; and this was the relation of the visiting surgeon to the defendant in this case.

"The plaintiff offered to prove that on the day he came to the hospital he objected to the house pupil having anything to do with his fractured leg, and that he wanted, and asked to be permitted to wait till the return of the resident physician, who was at the time absent. The plaintiff also offered evidence that previously to this time it had frequently happened that when a patient was brought in having been injured by accident, the house pupils received him and treated the case, if they so desired, without consulting any resident or visiting physician. The plaintiff offered other evidence which he claimed tended to show that the fractured bone was not properly set by reason either of the incompetency and negligence of the house pupil or of the negligence of the attending surgeon.

"The judge ruled that even if the plaintiff should prove that the fractured bone was not properly set in consequence of the incompetency of the house pupil, or the negligence of the house or the attending surgeon, the plaintiff was not entitled to recover, and the jury rendered a verdict for the defendant." This was excepted, and it came before the court in bank. I do not propose to go over the opinion, as I have stated the conclusions arrived at by reading the syllabus of the case, but I do wish to refer for a single moment to one paragraph of the opinion of Judge Devens. "It might well be questioned whether any contract could be inferred between the plaintiff and the defendant. It has afforded to him freely those ministrations which, as the dispenser of a public charity, it has been able to provide for his comfort, and he has accepted them. It has no funds which can be charged with any judgment which he might recover, except those which are held subject to the trust of maintaining the hospital. If, however, any contract can be inferred from the relation of the parties it can be only on the part of the corporation that it shall use due and reasonable care in the selection of its agents." And then he goes on to hold that that due and reasonable care in the selection of agents was shown in that case, and I hold, as matter of law, that upon the uncontradicted evidence in this case due care and due skill have been shown to have been exerted and exercised by this corporation in the selection of the visiting surgeons who operated upon, or who were consulted about the operation which was performed upon the plaintiff's eyes.

I might well rest a dismissal of this complaint, I think, upon the point which I have just stated, but I prefer to notice another. The burden of proof in this case, as in every other, is upon the plaintiff, and the plaintiff, before she can call upon the court to send this, or any other case to jury, must make out in law a *prima facie* case. In the case of *Carpenter vs. Blake*, the Supreme Court in the Fourth Department of this State held that, "One who offers himself for employment in a professional capacity undertakes:

"*First.*—That he possesses that reasonable degree of learning and skill which is ordinarily possessed by the professors of the same art or science, and which is ordinarily regarded by the community and by

those conversant with the employment as necessary to qualify him to engage in such business.

"*Second.*—That he will use reasonable and ordinary care and diligence in the exercise of his skill and the application of his knowledge to accomplish the purpose for which he is employed.

"*Third.*—That he will use his best judgment in the exertion of his skill and the application of his diligence."

As I have said on the other branch of the case, the proof is overwhelming and uncontradicted, that in this case the surgeons consulted and employed, exercised reasonable and ordinary care and diligence in the exertion of their skill, and if they did make a mistake in judgment I would not be justified in sending this case to the jury.

In this case the proof is also overwhelming and uncontradicted that the best judgment of these physicians was exercised. There is no proof on the other hand. Not a single medical witness or surgical witness has been produced on the part of the plaintiff who has assumed to say that this operation for glaucoma, which was determined by the examining physicians to exist, was not a perfectly proper and reasonable operation, and one which duty required them to make and, therefore, I can very safely rest this case upon this point that the plaintiff has not made out a *prima facie* case to go to the jury, even if this were a case which had been brought directly against the surgeons or the physicians for malpractice. There have been during the course of this trial, some allusions to the great hardship of the case. We all recognize that, and no one can see the affliction under which the plaintiff labors without extending to her his sympathy and his condolence, but with those considerations I cannot deal. It is my duty to enforce the law as it has been laid down and expounded by the judicial tribunals who are my superiors, and however unpleasant the duty may be I hope I shall never be found unable to discharge and perform it. For the reasons stated this complaint must be dismissed.

PROVISIONAL REPORT OF THE COMMITTEE OF THE NEW YORK NEUROLOGICAL SOCIETY, RELATIVE TO THE SUBJECT OF INSANE ASYLUM ABUSES, ACCEPTED BY THE SOCIETY JUNE 2D.—The undersigned, constituting the Committee on Insane Asylum Abuses of the New York Neurological Society, respectfully report that the petition prepared by them, and which contained the complaints deemed most important, was signed by many prominent physicians, lawyers, and other citizens, and presented to the State Senate on the 20th of March last.

It was referred by that body to two members—Mr. Goebel, of this city, and Mr. Goodwin, of Utica—constituting the Committee on Public Health. That committee has now made a report so unfair, one-sided, and so grossly misrepresenting the real facts of the case, that we feel called upon to solemnly protest against its being received by the profession and public as even remotely embodying the results of a *bona fide* examination. There was not even the pretence of a fair examination made, documentary evidence was excluded, the bias of the Committee was evident from the first, and they were surrounded by superintendents who had been examined the day previous, without any member of your Committee being notified thereof.

One member of your Committee who was examined at Albany, was forced, in self-protection, to protest against the passing, from superintendents to the Senator examining, of slips of paper containing questions desired by the former to be propounded to the witness, and superintendents were repeatedly seen to prompt that Senator. It may suffice, in possible explanation of the bias of the Senate Committee, to refer to the fact that the Senator conducting the examination is a resident of Utica, and strongly affiliated with the authorities of the asylum there located. It will be noticed that the Senate Committee is extremely careful in summing up its so-called conclusions, to speak of State institutions exclusively (meaning asylums supported and controlled by the State alone), although the petition distinctly referred to all lunatic asylums within the State limits.

As further characterizing the animus of the Senate Committee, we may refer to the fact that their piece of special pleading, miscalled a report, has been extensively circulated among superintendents and their friends, although no member of your Committee has received a copy, and we have no other knowledge of this report than that furnished by the daily papers.

It is also worthy of note that the Senate Committee, although informed that much valuable evidence could be obtained in New York, where most of the petitioners resided, evidence which could not be obtained at Albany, avoided receiving this testimony by refusing to meet anywhere but in Albany.

Your Committee has been charged by the partisans of the asylum interest with having appended names to the petition without authority, and misrepresenting its purport to signers. These charges are false in every particular; every name appended to the petition is authentic, and no one signed it without having had full opportunity to read it and become acquainted with its intent and purposes. It is true that a few of the signers became alarmed when they received a *quasi* threatening summons from the Senate Committee, and wrote that they withdrew their names, and that still a few others withdrew theirs at the personal solicitation of the superintendents, but the greater number of signers, including many prominent physicians, continue to affirm the pertinency of all the inquiries, and the necessity of a full investigation.

Your Committee proposes within a reasonable period to present a detailed report, exhibiting the actual character of the testimony presented, as well as other evidence which was excluded, in support of the allegations set forth in the petition. Your Committee is conscious of the fact that they require no better indications of their position.

*The Committee.*
T. A. McBRIDE, M.D.,
E. C. HARWOOD, M.D.,
E. C. SEGUIN, M.D.,
WM. A. HAMMOND, M.D.,
E. C. SPITZKA, M.D.,
J. G. KIERNAN, M.D.,
LANGDON C. GRAY, M.D.,
W. J. MORTON, M.D.

BRITISH MEDICAL ASSOCIATION.—In connection with the annual meeting of the British Medical Association, to be held in the city of Cork, Ireland, beginning August 5th, there is to be an exhibition of Sanitary Appliances, and Messrs. MacIvor, of the Cunard Line, the City of Cork Steam Packet Co., and the Clyde Shipping Co., have generously consented to convey exhibits free of freight to Cork by their respective steamships.

## BOOKS RECEIVED.

INDEX MEDICUS. Vol. I. No. 5. May, 1879. New York: F. Leypoldt, 13 and 15 Park Row.

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THE PHARMACOPŒIA OF THE BRITISH HOSPITAL FOR DISEASES OF THE SKIN, LONDON. Edited by BALMANNO SQUIRE, M.D., London, Sen. Surg. London. J. & A. Churchill, 1879.

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OUR DOMESTIC POISONS; or, The Poisonous Effects of Certain Dyes and Colors Used in Domestic Fabrics. By HENRY CARR, Med. Inst., C. E. London: William Ridgway, 169 Piccadilly, W., 1879.

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# Original Lectures.

## SPASMODIC DISORDERS OF THE LEGS.

PHILADELPHIA INFIRMARY FOR NERVOUS DISEASES.

S. WEIR MITCHELL, M.D.

(Prepared for THE MEDICAL RECORD.)

GENTLEMEN:—I have frequently called attention in this clinic to cases of spasmodic spinal paralyses, and have also not neglected to point out the fact, which Dr. Seguin and others have also long ago mentioned, that spasms of the legs and a prolonged rigidity are to be found in numerous and widely different cases of spinal disease.

My own clinical experience would lead me, as regards this matter, to the following conclusions:

1. That there are many forms of spinal trouble, myelitis, tumors, syphilitic alterations, etc., in which we find these symptoms as incidents in the course of the disease.

2. That there are rare cases in which spasms of the legs are due to obscure functional conditions, and in which these symptoms seem to be temporary, and to constitute the sole objective symptoms.

3. That the group of symptoms described by Seguin as tetanoid paraplegia, and by Erb and Charcot as spasmodic spinal paralyses, or spasmodic dorsal tabes, constitutes a distinct disorder, probably due to sclerosis of the lateral columns of the cord.

There have not as yet been so many cases of spasmodic spinal palsy reported as to deprive of interest thorough statements of other cases; so that the facts I shall add concerning these will not lack value. Moreover, in the matter of functional disorders of the lower limbs with spasm, I shall have quite enough to say of what is new, to justify me in calling your attention to this part of the subject.

I am not as yet quite sure that we may not be justified in making a distinction between two classes: perhaps they are species, or, haply, but varieties of spastic spinal palsies. This distinction would lie in the fact that we have one set of rare cases in which the spastic element is purely a rigidness, without large tremor or spasm—a rigidness caused by every muscular movement, active or passive.

The other set of cases presents like states, with excessive spasms of the legs on slight irritation; so that the rigidness which motion causes is accompanied with intermittent spastic phenomena and more or less paralysis.

Examples of the first group are rare; but when they occur with some paralysis, slight vesical troubles, and absence of sensory disturbance, I am disposed to refer the case, without much doubt, to the Erb-Charcot group (lateral sclerosis). In proportion, however, as the case exhibits, with these symptoms, differences, together with *excessive* phenomena in the way of temporary clonic spasms (Séquard's spinal epilepsy), am I disposed to suspect the presence of some cause other than mere sclerosis. The distinction may not be entirely just; nor, of course, do I wish to deny that trepidation makes part of many cases of lateral sclerosis; but, at the same time, I wish to point out that I have now seen several cases in which, with every other symptom, there never was either permanent contracture or any form of large tremor. These were instances of more or less loss of power in the legs; of nearly undisturbed sensation; of slight or negative vesical symptoms; of varying rigidity of the limbs.

Without giving these cases at length—and I saw both through many years, and until they died—I will relate their history in a condensed form.

Mr. L., a clergyman, of almost ascetic habits, began at the age of forty, and without known cause, to feel feeble. The weakness was worst on rising in the morning, and faded away before ten A.M. By and by, within a year from the first symptom, he began to have a singular walk, and then first applied to me; at this time he was, he said, less weak than he had been, and believed that the stiffness of the limbs, while it annoyed him, enabled him to stand, and even to move, with less effort. I ceased to reflect on this statement, until it was repeated in connection with another case quite recently. As I shall point out, it has its interest. In Mr. L.'s case the lower limbs were strangely rigid, and the stiffness was so nearly balanced, as regards the opponent muscles, that he walked chiefly by throwing forward first one and then the other side of the pelvis, so as thus to carry the feet forward in turn. At the same time the spine itself was somewhat stiff, and the head carried well back. To get on to his feet was a vast exertion; but once erect, he contrived to move in the singular style I have just described. To sit down, he would seize a chair-back with one hand, and then let his rigid legs slip forward, so that he fell on to the seat. Once seated, he managed, with one hand, to get hold of the pantaloon at the back of the calf, and, while he drew this towards him, with the other hand he held the thigh firmly. By these manœuvres he contrived to bend each leg. Once bent, they remained so until, by a desperate and often unsuccessful effort of will, they were again put into a state of extension. When at rest, as when seated, these limbs presented in perfection what we call here the "lead pipe" symptom—that is, to flex or to extend them was equally difficult; and the regularity and steadiness of resistance was precisely what is felt when we endeavor to bend a leaden pipe. If, when he was at rest, I lifted one leg a foot or two, and there left it, it would remain almost motionless for a moment, and would then descend by the aid of its own weight, without notable tremor. Every effort to move the legs, whether by act of will or passively, met with steady resistance, which, if overcome by abrupt violence, gave rise to pain. If he tried, by act of will, to prevent the raised limb from falling, the descent became, as it were, broken into a series of partial falls, with intervals of slower descent. With this remarkable condition, Mr. L. had no bladder trouble, except after six years some slight paresis; neither had he ever any sensory disturbances. His death was probably due to a cerebral hemorrhage, and took place when he had suffered about ten years from the spinal malady. As the case was interesting, and might have proved valuable, I was of course denied the privilege of a post-mortem section.

I recall most distinctly a very similar case, in which I was for only a few months the attendant.

This gentleman, æt. about forty-four when attacked, had been an excessively overworked professional man. He had never had syphilis. His trouble came on with vague discomfort in the back—a tired ache. Within a year or two the rigidity of the calves began to show itself, and by degrees this extended to other muscles until it became almost universal.

The arms and legs and back, and even the neck, were affected, and, late in the case, the patient insisted that the facial muscles were also somewhat

stiff. The rigidness was extreme, and the source of great discomfort, which was relieved, although only for a few minutes, by free passive movements. I believe the bladder was never seriously affected; and, except for some sense of numbness, there were no symptoms connected with touch.

The following history of a case of spastic paralysis corresponds closely to Charcot's description; but the clonic spasms were never very remarkable:

P. C., single, æt. 32; born in New Jersey. The patient's family history is good, and, as far as it can be obtained, is free from hereditary taint. When a child, she was considered remarkably healthy. At the age of ten years she had scarlatina; but from this she made a perfect recovery.

She has never had intermittent or typhoid fever. Her menstrual function began at the age of fourteen; and since then it has been performed regularly, and in a perfectly normal manner.

In February, 1878, while feeling perfectly well, she caught her foot, and fell heavily upon her left side, bruising her thigh, but not striking her head or spine. She recovered very soon, and does not consider that the injury had anything to do with the onset of her present trouble, for which she can assign no cause whatever. She has led a very easy life, and has always been very careful about exposing herself to cold and damp.

In June, 1878, she began to notice a slight degree of numbness in her legs between the knees and ankles, both legs being similarly affected; and soon after this, she noticed that her toes dragged a little, and had a tendency to catch in anything projecting at all above the level of the floor; and when she walked with bare feet, the toes of the right foot would sometimes turn directly underneath the sole.

The muscles of the legs, soon after this, began to grow stiff, so that free motion became impaired. In walking, her feet fell very heavy, and would strike the floor heavily; her friends telling her she walked as if she had "cork legs." Going up and down stairs was particularly difficult. Sometimes in walking she noticed that, besides the difficulty of touching the ground with her heel, her ankles had a tendency to turn outward; and, to avoid this as much as possible, she laced her shoes tightly. She has never noticed any difficulty in walking in the dark, although the sensation of her soles was impaired.

This latter symptom made its appearance about August, and extended part way up her legs; although it was most marked in the soles of her feet, the carpet not feeling as distinct to her as it should.

About this time, in getting down from a car, she was obliged to jump, as she was unable to step down. She alighted heavily upon her feet, and jarred herself very much; and for two or three days she experienced considerable pain in the sacral and lower lumbar regions; with this exception, she has had no spontaneous pain whatever. She thinks the symptoms made a more rapid advance immediately after this accident than they had previously done.

In September she noticed, for the first time, slight spasmodic twitches in her legs, particularly when quiet in bed; and these have continued since, becoming slightly more severe.

One month ago (latter part of September), owing to the gradual increase of the muscular rigidity, she was obliged to have help in order to get about. The abnormal sensation in her legs by this time had extended half-way up her thighs; but within the last two weeks it has extended to her body.

Two weeks ago she discovered a small spot at the junction of the lumbar and sacral vertebræ, which was quite sensitive upon pressure with the point of the finger, but not with a larger surface.

Within the last week slight difficulty in urination has made its appearance; the trouble being to evacuate her bladder even after she feels a strong desire to do so. She is naturally slightly constipated; but this symptom has increased lately also. Coldness of the feet has been a marked symptom, and even brisk friction would fail to warm them or to remove their pallor. She has never had the least sensation of a girdle; nor has she ever had any pain in the extremities.

Her arms appear to be entirely free from trouble; and the tactile sensibility and power of movement is perfect.

When standing in bare feet, the left ankle bends outward; and, although she can lift the left leg from the floor, she is utterly unable to move the right foot; nor can she stand without support.

Sitting up is a little difficult, on account of the rigidity of the muscles about the hip; and, when in this position, she finds it much easier to extend than to flex her legs. The power of the extensors is good, patient being able to resist flexion very strongly, while she cannot resist extension of the legs with nearly as much force.

The legs, when first moved, are somewhat rigid, and have a tendency to remain in the position in which they are placed; but after a little manipulation this disappears to a great degree. The adductor muscles of the thighs are likewise rigid, and the legs cannot be widely separated.

A very light tap upon the patella tendon of either leg causes a violent contraction of the extensor muscles of the thigh, and forced flexion of the foot likewise causes a spasm of the leg. This is particularly true of the right, although this procedure does not always cause the spasm. The slightest prick of a pin causes a very perceptible reflex spasm.

The compass-points cannot be recognized as two upon the soles of the feet, the points and the round end feeling about alike to the patient. Upon the dorsum of the left foot the points are recognized as two when two inches apart, and on the right foot when one and three-fourth inches apart (the normal distance being a little over one inch.—A Flint, Jr.). Over the patella of the right leg the points are distinguished when two inches apart, but not on the left side (normal distance being nearly one inch). Upon the thigh the sensation is nearly normal.

No apparent atrophy has taken place in the legs, both calves measuring alike—viz., eleven and a half inches. The reaction to induced current appears about normal, perhaps slightly increased. Pressure over upper sacral region, in the median line, or on both sides of it, causes considerable pain; and this region is quite sensitive to the galvanic current (negative pole), which causes but very slight sensation higher up. There is more sensitiveness to the current upon the right side than upon the left.

When lying in bed, her feet are strongly extended, and resist flexion quite powerfully. The feet are cold; there is no œdema. As before mentioned, there are occasional twitches in both legs.

Her appetite is fair; there is no cough; urine normal.

There is a considerable fibroid growth on the anterior aspect of the womb.

Dec. 7, 1878.—The legs have a tendency to remain flexed; and the feet are extended, owing to the contraction of the gastrocnemii group of muscles. The

other muscles are relaxed, so that the legs no longer show a tendency to remain in any position in which they may be placed. There is an increase of the wasting previously noted, the calves measuring a half inch less than at last measurement. She is utterly unable to stand without assistance, as her knees give way beneath her. The muscles of right leg contract more promptly to secondary interrupted current than do those of the left; and there is occasional spontaneous twitching of the extensors of both thighs; but this symptom is diminishing.

The reflex action of the tendons remains about the same as at last trial (viz., increased). The feet feel cold to the hand, although to the patient there is a frequent sensation of burning in them. The capillary circulation appears about normal. The toe-nails grow equally and naturally.

Pricking the insteps with a pin produces a sensation of pain in leg from knee to ankle, but no sensation at the point touched; and she cannot tell when the soles of the feet are touched. Sensation is impaired upward as far as a line drawn around body on a level with the anterior superior spinous processes, and at this point it apparently ceases abruptly. The patient, however, has perfect control over the sphincters at present.

There is no pain on pressure over abdomen, although there is spontaneous pain in the right iliac region, which the patient can bring on by sneezing or coughing. This pain is not modified in any way during the menstrual periods, which recur with regularity, and are normally performed. The painful spot over the sacral region is still present, and is limited to an area one-half inch in diameter; it gives no trouble. The patient does not think that the tumor has increased lately in size at all.

At the time I speak, this case has become worse; but the sensory disturbances have lessened rather than grown.

While here under my care this woman's case enabled me to study with care some aspects of the symptom rigidity, to which I have already alluded.

When she arrived, and I understood how troublesome was this symptom, I directed, among other means, that a practised masseuse should treat the stiff legs an hour daily. The treatment was simply kneading, with as little irritation of the skin and as little motion of the legs as could be managed consistently with thorough massage of the muscles.

Each treatment was found to lessen the stiffness, and in a few days it disappeared, to my great pleasure and that of the patient. Our happiness was short-lived; for when she tried to walk or stand, it was found that she fell at once, unless sustained, and was unable, as before the massage, to stand at all, or to move across the room. The cause was but too plain. The rigid limbs acted as splints, and enabled her, with the slight aid of her enfeebled muscle-power, to stand or walk a few steps. Without the rigidness of limb, the supply of nerve-force was insufficient to effect these purposes at all. After two or three days without massage, the stiffness returned, and with it capacity to stand. I had, indeed, given her a more than dubious help; and the massage was of course an experiment; but I was surprised to find that the handling did not increase the spastic phenomena. It is to be remembered, however, that in this woman's case the tremor and clonic spasms were not very marked. I may now recall the statement of Mr. L., Case I., who began by being weak in the legs, and was for a time made to feel less feeble by the invasion of the rigidity, which, after a while, entirely destroyed all power to move.

The most extreme case of these disorders I can recall I saw but once many years ago in the person of a priest, who had become rigid—almost literally from head to foot—since the neck and back muscles were involved, and there were, as I remember it, even in this advanced stage, no contractions save in the left hand, and in the adductors of the thighs. I have no notes of this case which I call up from memory. There were some curious cerebral symptoms, not the usual ones, and it may have been an unusual case of disseminated sclerosis. I mention it to describe a singular fact. The man was totally unable to speak until some one raised either leg, and moved it freely. If this did not answer, an arm was also thus exercised, and at last after a few moments he would begin to speak and continue to do so easily enough—so long as he did not pause. A half minute of silence made it needful once more to move the limbs, in order to enable him to speak again.

This phenomenon, curious as it is, does not stand quite alone in my experience. I saw some years ago a typical case of spastic spinal paralysis, in which there never was at any time the least evidence of spasms from the skin reflexes. Although sensation was perfect, abrupt or slow motion, passive or active, caused rigidity of the opponent group, but the reaction was firm and steady, not jerky. A few passive motions made regularly seemed to lessen the resistance, and even for a time to wear it out. The patient himself remarked to me that these exercises also relaxed notably the corresponding limb, and this was, indeed, plainly apparent. The absence of tremor, when this man was put on his feet, was striking; for although the great stiffness made needful some aid to enable him to keep his balance, there was lacking almost altogether the quivering play of the tendons, so marked in many of these cases; neither was there ever, in a history of seven years cut short by tubercle, any permanent contraction of the fingers. The bladder was not troubled for at least three of these years, and was never more than feeble.

Rigidity, with or without clonic spasms, is to be found in many clinical groups of symptoms. Cases accurately filling the required role of Erb-Charcot symptoms without exceeding it are, as I have said, somewhat rare. The following case, which came to the clinic of my friend Dr. Sinkler, is an interesting illustration of rigidity, tremors, and various other symptoms which leave me in much doubt as to the pathology.

Charles Perry, æt. 36; married. Patient has worked in lead paints for twenty years or more, but he has never had colic or constipation, nor has a blue line ever been detected upon his gums. He denies venereal taint.

In the spring of 1875 he was attacked, without any particular cause, with pain in the right shoulder and elbow; the pain would start in the elbow, shoot up the arm to the shoulder, through the shoulder-blade and back again to the elbow; this pain was sudden, sharp, and quick in character, and continued about the same for two years. In 1877 he was obliged to give up all work on account of the pain and the weakness of the arm, as considerable wasting of all the muscles of the shoulder had set in.

When first seen at the hospital, in September, 1878, the patient complained of shooting pains in the shoulder-blade and in the head; his appetite was poor, and a meal was invariably followed by water-brash and headache; he had tinnitus aurium and slept but poorly. Often in attempting to speak there would apparently be a spasm, which would suddenly arrest the

speech; as he expressed it, "something caught him" in the throat.

While sitting upon a chair there was a slight rhythmic trembling of the right hand and arm; when walking, the shoulder and pectoral muscles would begin to tremble, and the tremor of hand and arm would become much larger and pendulum-like in character. Even when in a recumbent position this tremor would continue, so that in order to get to sleep he had to lie upon the arm. When standing, there appeared to be a tenseness and rigidity of all the muscles of the right side, which tenseness was much increased during walking, at which time the patient would be drawn a little toward the right side; the ribs on right side appeared drawn together as if the intercostal muscles were also affected.

The right foot dragged a little during walking, and the great and next two toes were drawn toward the sole; his right thumb was drawn into the palm with sufficient force to cut the skin with the nail; this flexion of thumb relaxed when patient was recumbent.

*Eye ground.*—O. S. deep physiological cup, pulsation of veins, cribriform fascia sharply defined, disc indistinct, relation of veins to arteries normal. O. D. cup deeper, otherwise the same.

*Urine* normal.

There was no difficulty of swallowing, but occasionally immediately after eating he would eject considerable thick mucus (œsophageal vomiting?).

℞. Ol. morrhuæ, f ℥ss. d.; Elix. ferri, quin. et strych., f ʒ i. t. d.

Grip of both hands alike, registering by dynamometer 130. No dragging of right leg in walking, and April, 1879, a diminution of the tremor.

Improvement since October; patient stronger; less fibrilar tremor. Eructation of mucus still present; character of food taken immaterial as regards after-effects.

℞. Half tumbler skimmed milk every one and a half hour during day, and nothing else.

Stop ol. morrhuæ, etc.

Great improvement; tremor gone; likewise headache and eructation.

Has confined his diet to three quarts of milk daily.

Worse again as regards tremor.

Has gained twenty pounds since October. Pain in loins, across back of neck and in ear.

Tendon reflexes; left leg about normal; right leg a little increased.

The symptom rigidity, in the form of general stiffness of the mass of muscles of the legs, increasing with all forms of movement, has an interest apart from the spinal malady, of which it seems to be one of the characteristic signs. I have seen it in children a small number of times associated with defective cerebral development. The rigidness was marked and the walk in two cases curious, since the posterior muscles being those most attacked, the poor little lads were nearly pulled over backward at each step. I have also seen cases of spasms of the adductors of the thighs; but, although I have had circumcision done in some cases where the phymosis seemed a possible cause, I have never as yet known the operation to do good. I do not doubt, however, that irritation of the sexual organs is sometimes a source of adductor spasms. There are rare cases of spasms of the legs which seem, as yet, inexplicable, because they do not permit us to ascribe them to any pathological change in cord or brain, but, passing away, leave the patient as free from annoyance as would a light attack of epilepsy. I have seen two such cases, and I have found nothing like them in any of the books.

A lad, æt. 17, thin, but of good color and fair health, was the orphan child of parents both of whom had died of pulmonary tubercle. After exposure to intense heat he was attacked with headache, and before this left him—that is, in forty-eight hours—he began to complain of dull aching in the legs. The next day he was somewhat stiff in moving, and on the day after was unable to walk. At this time I saw him. He had legs so rigid that it was difficult to bend any part of them. When bent it was as difficult to extend them again. Both of these passive movements caused some dull pain. There was hardly any tremor, and neither plantar irritations nor sudden movements caused irregular spasms. Sensation was absolutely perfect, the bladder in good order, the secretions normal, and there was no pain in the back. By slow degrees this remarkable rigidity disappeared, and the boy was well at the close of three weeks. I sought in vain for a cause for this attack. It was possible to exclude every usual source of irritation which might be called on to explain the rigidity as due to excitation of the spinal cord, nor was there the least reason to regard it as a neurosis of psychical origin.

Not less mysterious was the second case, that of Mr. L., æt. 48, a city official, large, sturdy, a full but somewhat regular liver, free from any taint, and of healthy ancestry. He was in his third attack when I saw him in the middle of the night. The previous attacks came on like this one, without warning; that is, he was well in the morning, and in the early afternoon began to suffer pain in the back and legs, with increasing stiffness. Before midnight the disorder was at its height, and had never lasted over thirty hours.

When seen by me the patient was seated in an easy-chair, which he preferred to a bed. He was flushed, sweating immensely, temperature nearly normal, pulse up to 135. The legs were extended and moderately stiff, but the least handling of them caused them to be thrown into intense spasms, during which the belly muscles also contracted, and the legs and feet were extended violently at brief intervals and with agonizing pain, which, as he described it, passed through the whole of the muscular masses of both legs, and between the spasms left him with a dull, aching pain. It was difficult to resist the idea that the man was poisoned with strychnia, but, above the waist, every motion was as usual, while the lower half of the body was in a state of severe tetanus. Under free use of narcotics these strange symptoms were readily relieved, and within sixteen hours entirely disappeared. The cause is to this day as much a mystery as it was at the time I saw him.

I have said nothing here as yet about the treatment of spastic spinal palsy, but I am inclined to state that I have seen more cases of spastic spinal palsy, and of amyotrophic lateral sclerosis which were to a degree amenable to treatment, than I have of posterior scleroses. Perhaps if the symptoms related themselves as definitely to the pathology in the former disease as in the latter disease, I might change my opinion. I do not expect to cure any case of distinctly pronounced sclerosis, but there are ways of helping, and at least of relieving, many of these distressing cases. This is especially the case where the sufferers are poor and have been ill-fed and forced to labor. Then the change to quiet and rest, and the comfort of good rooms, the wholesome, abundant food and tonics, often make an improvement which, however, but too soon reaches its limit. What we have done has been not to lessen the disease, but to improve the rest of the

economy. If a man can throw on to his muscles only a small part of the usual will-force, to improve his tone is to give his centres a greater capacity for evolving power, and his muscles a larger capacity to respond.

In painful cases of spastic paralysis I have found it most comforting to use hypodermic injections of morphia, nor should I fear their use, but would, in pronounced cases of this terrible malady, be quite willing that my patient should form a morphia habit. I have also employed atropia with morphia and alone, and also gelseminum; but although it is possible, with help of the latter drug, to lessen the spasms, this can only be done by doses such as give rise to vertigo; very large doses of bromides may also lessen the spasms. The permanent rigidity is of course distressing, but in some cases it is only the violent clonic spasms which give rise to pain.

# Original Communications.

## CAUSES OF DEATH IN SURGICAL OPERATIONS.

By A. L. TRANNEY, M.D.,

ADJUNCT PROFESSOR OF ANATOMY, MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

### Part I.

It is my desire in this paper to direct attention to those causes of death which occur during surgical operations, and to study those measures on the part of the surgeon which will tend to modify their severity, or, by preventing their occurrence, decrease the danger to life.

I shall divide these causes of death into: first, those dependent on the *blood-vessels;* second, those dependent on the *nervous system;* and, third, those dependent on the *blood.*

I shall consider, under the first, causes dependent on vessels: 1st. Hemorrhage; 2d. Air in the veins; 3d. Apoplexy; 4th. Embolism.

Under the second, causes dependent on nervous system: 1st. Shock; 2d. Collapse.

Under the third, causes dependent on blood: Anæsthetics.

I proceed first to the discussion of hemorrhage, as the most frequent cause of death during surgical operations.

#### HEMORRHAGE.

To die of repeated hemorrhages, while perhaps the most painless of deaths, is the most awful. With each succeeding hemorrhage, dissolution is so distinctly intimated, and the patient is so conscious that his strength is fast ebbing, that he clings to life. The most resolute are overcome with an anxiety which they cannot conceal, and look around for some one to delay, at least, the fatal moment.

But if there be a *sudden* hemorrhage from a vessel opened in an operation, or from an aneurism, or from some wound, the arteries of which cannot be discovered, there is *immediate* danger of death to the patient, even while in the hands of the surgeon. Those who have witnessed the agitation of such scenes can best judge of the importance of this subject.

John Bell, in his essay on hemorrhage, though undoubtedly influenced by the defective means of arrest then existing, closes a paragraph with these words: "Were this *one* danger removed, would not the young surgeon go forward in his profession almost without fear?"

I question if even our present enlightenment has entirely dispersed this element of anxiety.

Hemorrhage is usually classed into three distinct varieties: 1st. *Arterial,* as indicated by a bright red color of the blood and an intermitting flow; 2d. *Venous,* as indicated by a continued flow and darker color; 3d. *Parenchymatous,* as indicated by a *general* oozing from the capillaries of injured surface.

#### CAUSES PRIMARILY MODIFYING HEMORRHAGE.

The amount of hemorrhage is *modified* at first by the number of vessels wounded and by the smoothness of the *cut* surface.

This latter element is especially important in vessels of large calibre, since an injury with a dull instrument, or the rending of a vessel from violence, leaves the mouth in a condition to offer more or less resistance in itself to the rapid escape of blood, independent of the changes which occur in the coats of the wounded vessel subsequent to its injury.

#### CAUSES TENDING TO PROLONG HEMORRHAGE.

There are, however, other causes which may modify hemorrhage *later on,* and, by *prolonging* it, tend to greatly increase the danger to life. Under this head I would mention:

1st. *Gravity.*

2d. *High temperature,* whether in the wound or surrounding atmosphere, by delaying coagulation.

3d. *Muscular expiratory efforts,* especially in wounds of the neck.

4th. *Obstruction to a free venous return.*

5th. *Obstructed or delayed contraction of vessels,* as occurring in hepatic hemorrhage; from the teeth; from the nutrient artery of bone; from disease of the vessel; and from atony of vessel.

6th. *Diseases of blood,* preventing coagulation or assisting exudation, as in *vicarious hemorrhage.*

7th. *Congenital anatomical defects* in the construction of vessels. Wilson's case: *Lancet,* 1840; coats only one-half normal thickness. Blagden's case: *Med. Chir. Trans.,* vol. viii., p. 224; transparent coats—died from pulling tooth. Trachsmuth's case—death from ruptured hymen.

#### PATHOLOGICAL CHANGES DEPENDENT ON HEMORRHAGE.

These changes may properly be grouped under three heads:

1st. Changes in the constituents of the blood.

2d. Changes in the heart's action.

3d. Changes effected in the tissues.

There has been much discussion whether changes in the blood constituents, dependent on injury to tissues, and vessels, are always uniform. I think that in those forms of violence causing marked injury to tissues, that all the steps of an inflammatory process must necessarily occur within the injured tissues, and that the customary blood-changes in inflammatory blood must also *coexist,* provided that sufficient *irritation* has been produced to cause constitutional as well as local symptoms.

But I am by no means certain that in those cases of injury to a vessel, where the tissues are but *slightly* involved and the hemorrhage small in quantity (thus causing little, if any, direct constitutional effect), a markedly altered *blood-condition* is developed, or that increase of the fibrin and albumen could well be verified.

I am inclined to regard "blood-changes," dependent on injury to vessels and tissues, as but a slight

factor in the reparative process which nature sets up unaided; and also to think that the "increased plasticity" of the blood, so much discussed as aiding nature's arrest of hemorrhage, is not only dependent on the amount of irritation produced by the injury on the tissues, but in many cases may be wholly absent.

Not so, however, with those changes in the blood *localized within the wound*, and dependent, not on chemical alteration in its constituents, but rather on mechanical obstruction in the vessel, from the increased *density* of its fluid, resulting from a sluggish current and constant exudation of the plasma.

I do not feel that a lengthy description of the changes in the vessels following an irritant is admissible; but we have, doubtless, all perceived how in the web of a frog's foot, under the glass, are seen, successively, the stage of capillary contraction, of capillary dilatation, resulting in active hyperæmia, and followed subsequently by congestion, stasis, swelling of tissues from exudation of plasma elements, and transudation of white corpuscles.

We know, also, that the red blood-corpuscles, when deprived of the normal amount of plasma by exudation, show an *apparent* increase of adhesiveness and a tendency to pack themselves together like *coin* in bundles.

This *adhesiveness* seems to me, however, a purely local condition and a mechanical result of the escape of the plasma, not attributable to a general blood change or necessarily a *prima facie* evidence of general increase in the fibrin.

We may state then, in summary, without going too deeply into argument, that the changes in the blood, dependent on injury to vessels, are of a *local* and *constitutional* character; that the local conditions are mechanical in their causation, and, therefore, more or less uniform. While the constitutional conditions are dependent on some changes, resulting from irritation at the seat of injury, and are variable, not only in their degree, but even in their actual existence.

We pass to the second set of changes, due to injury of the vessel, viz., "changes occurring in the heart."

II. *Changes in the Heart.*—Immediately upon the opening of a vessel of large calibre constitutional effects appear in direct proportion to the amount of blood lost. These effects are mostly confined to the heart and general circulation. The heart gradually loses its normal power, and becomes accelerated in its action. The arterial tension in the superficial vessels shows rapid diminution, and the pulse changes in volume from its normal character, becoming smaller and even *thready* in cases where the hemorrhage has been alarming.

III. *Changes in the Tissues.*—The third class of pathological conditions, viz., "changes in *tissues*, dependent on injury to vessels," is found to exist in two distinct situations: 1. In coats of the artery themselves; 2. In the tissues about the artery.

When an artery of small size is wounded, we notice frequently that without any form of treatment, not even compression for a short period, the hemorrhage ceases spontaneously and within a very short time. We notice, in the second place, that this spontaneous arrest of hemorrhage is more rapid in some anatomical situations than in others; and, in the third place, that this spontaneous arrest of hemorrhage depends somewhat on the variety and extent of the injury.

To explain the conditions to which these variations are due, and to positively reach the exact changes in tissues on which this spontaneous arrest of hemorrhage depends, has for centuries been a subject of investigation. inquiry, and dispute.

Petit, in 1731, claimed that the arrest was due not to contraction of the vessel, but to the formation of two clots—an outside clot called "*couvercle*," and an inside clot called "*bouchon*."

Morand, in 1736, added changes in the arterial coats.

Kirkland, in 1768, added the effect of decreased heart's action and sustained arterial contraction, but denied the influence of coagula.

John Bell denied contraction and *internal* coagula as a means of arrest, but advocated "infiltration of blood into the cellular tissue."

Jones, in 1805, in his wonderful essay on hemorrhage, by experiments, advanced doctrines which to this day have been little altered.

These changes, as now accepted, are as follows:

1st. A retraction of the whole vessel within its sheath occurs, due to its normal elasticity.

2d. A contraction of the entire coats of the vessel in some cases ensues, causing a conical appearance of the severed end, or, in others, a *curling* of the middle and internal coats into the calibre of the injured vessel is perceived.

3d. The formation of an internal and external coagulum is usually detected, the latter being, however, possibly absent.

4th. "Adhesive inflammation" is now excited between the clot and internal coat, also between the three distinct arterial coats, and often between the external coat and the outside tissues.

5th. Organization of the internal coagulum, with development of blood-vessels within it, and a free anastomosis between them and the neighboring capillaries, completes the process of repair.

Guthrie states that in the *distal* end of an injured vessel these changes are, as a rule, imperfectly performed; that arterial contraction is deficient, and that, for that reason, secondary hemorrhage from the distal end is most common.

A much better explanation of this latter occurrence, to my mind, is based on an anatomical alteration between the proximal and distal extremities of an injured vessel, since, in the latter, the vaso-motor nerves are frequently severed from their direct *ganglionic* attachment; and from *defective nervous* influence, reparative processes are either delayed or imperfectly performed.

### SYMPTOMS DUE TO HEMORRHAGE.

When a patient expires suddenly from the impetuous bleeding of some large artery, from a ruptured aneurism or wounded viscera, the face at once becomes deadly pale, a dark circle round the eyes is perceived, the lips change to a blackish hue, and the extremities become rapidly cold. The patient faints, revives but to be conscious of his danger, and faints again. The voice is lost; there is an anxious and incessant tossing of the arms, with that restlessness which is the sign of the approaching end. The head is suddenly raised, gasping as it were for breath, with inexpressible anxiety depicted on the countenance. The tossing of the limbs continues; convulsive sighs are drawn; the pulse flutters, intermits from time to time, and the patient expires.

The countenance is not of a transparent paleness, but of that clayey and leaden color which the painter represents in assassinations and battles; and this tossing of the limbs, which is commonly represented as the sign of a fatal wound, is indeed so infallible a sign of death, that I have never known any one to recover who had fallen into this condition.

*Treatment.*—In the early centuries, when hemor-

rhage was with difficulty controlled, and the percentage of mortality from this source enormous, superstition frequently accompanied the defective surgical means at that time in vogue. Thus we find Wolffius, Senertus, Michael Mercates, and Gottfried Maebius, in the sixteenth century, extolling the application of TOADS behind the ear and in the arm-pits, as a means of arresting hemorrhage.

Plunging bleeding members into the abdomen of a living fowl had its adherents. The use of hot magnetic ore, boiling oil of turpentine, vitriol, and corrosive sublimate were also among the cruel practices of the day. The actual cautery can be found described as early as Galen. Albucasis, in his work on surgery, devotes fifty-eight chapters to the cautery and its uses. All possible designs and shapes were wrought from iron to meet the various emergencies, and plates of them published, and the special advantages of each extolled. Red-hot knives were first suggested by "Fabricius Ab Aquapendente" as a valuable improvement on former customs for the *immediate* arrest of hemorrhages during amputation.

In the reign of Henry IV., Ambrose Paré first advocated ligature, with rules and directions not unlike those of the present day; but for a century it was used with great caution, and met with much disfavor.

Petit, in 1730, urged a compress and bandage at the stump to modify the *shape of the clot*, and invented the tourniquet, known by his name. In 1732 Petit's experiments of the effect of astringents on mutton were made in his endeavor to discover artificial means to *harden* the clot within a stump by local applications.

Pouteau, soon after, advocated the ligature of *nerves* with the vessel to stimulate the swelling of tissues, and thus cause compression of the vessel. Subsequently torsion became developed by Amussat, Velpeau, and Thierry. Ligature and its mechanism have been fully explained by Jones. Tourniquets have been modified and improved by Signorini, Skey, and hosts of others, and the study of collateral circulation investigated to a high degree of perfection by Mannoir, Porta, and Stilling.

Transfusion has also been added, of the literature of which Blundell's Essay probably best deserves mention. Acupressure, devised by Simpson in 1859, has proved also a valuable contribution to this branch of surgical investigation.

To recapitulate, then, we have as surgical means of arrest:

1st. *Tourniquet* (a temporary measure): Petit's, Signorini's, Skey's Horse-shoe, and others.

2d. *Styptics:* 1. Cold used in cavities or to allay general oozing. 2. Ferri persulph. 3. Gallic acid. 4. Matico. 5. Alum. 6. Argent. nitratis.

3d. *Ligature:* Paré, Jones.

4th. *Torsion:* Galen, Amussat, Velpeau, Thierry. It is now decided that four complete turns are required to occlude the calibre of a vessel.

5th. *Acupressure.*

6th. *Cauterization.*

7th. *Transfusion of blood.*

I close the subject of hemorrhage by enumerating certain general rules of treatment, which seem to me to meet all possible indications.

1st. Always *ligate* the bleeding vessel, in moderate hemorrhage, when convenient to do so; the form of ligature used depending on the choice of the operator.

2d. Use compression over the wound on the *main trunk*, in moderate hemorrhage, when ligature of the wounded artery is inconvenient.

3d. In *violent* hemorrhage enlarge the wound and tie the artery.

4th. As a *rule*, never attempt ligation except when bleeding *actually exists.*

The exceptions to this rule are: 1. In *exposed* vessels of large calibre demanding ligature as a safety measure. 2. In delirium tremens following an injury. 3. When necessity for transportation exists.

5th. Ligature should, as a rule, be applied *at the bleeding point*, and not remote from it.

The reasons for this general statement being: 1. That collateral circulation may otherwise keep up the hemorrhage. 2. The bleeding vessel may not be the main trunk. 3. There exists in certain localities additional danger as you approach the heart. 4. Gangrene is liable to occur, in case subsequent ligature of the wound shall be required.

6th. Use the *external wound* as a *guide* to your incision to reach the vessel—except when the wound exists on the side opposite to the vessel injured, when a probe may be cut down upon.

7th. Always use the greatest precaution to avoid needless loss of blood in reaching the vessel, until the finger can compress it.

8th. The artery, when found, should be tied above and below the wounded portion, and at a bifurcation THREE ligatures should be used.

In case the lower end cannot be discovered, use *compression* in the wound as a substitute for ligature.

9th. A ligature should not be placed close below a large branch.

10th. In *recurring* hemorrhages the treatment should depend on the *color* of the blood and on the severity of the hemorrhage.

If the hemorrhage springs from the proximal end of the artery: 1. Tie, if possible. 2. Amputate, if necessary. 3. Use styptics and compression, if both are impossible.

11th. *Amputation* is preferable to ligature: 1. When great swelling of the limb renders ligation difficult. 2. When exhaustion of the patient forbids further search for the vessel. 3. When *competent assistance* is needed and not attainable.

12th. In case a large vessel is injured, without actual hemorrhage, heat and flannels to the limb are indicated as a *preventive* measure.

13th. In case an aneurism is the seat of hemorrhage—provided the aneurism is *traumatic* in its origin—it should be treated on the same principles as if it were a wounded artery.

(To be continued.)

## FOREIGN BODY IN THE INTESTINES—OPERATION AND RECOVERY.

BY J. C. McKEE, M.D., U.S.A.

JOEL H. TUDOR, American, æt. 28; occupation, laborer and amalgamator at "Tip Top" Silver Mine; height, 5 feet 10 inches; weight, 185 lbs.; of a strong and muscular frame.

*History.*—On January 15, 1879, was performing a customary sleight-of-hand trick with a piece of copper wire about three inches in length, held in one of his hands, and which, by rapid manipulation, was made to mysteriously disappear; the lookers-on betting freely that it would be found up one of his shirt-sleeves or elsewhere. He had performed the trick so often as doubtless to have become careless as to the distance the wire was inserted or pushed into the nostril, at the same time being ignorant of the close and continuous connection between the nasal cavity and the throat or pharynx. This time, after having his

shirt-sleeves, etc., searched, and, in order to show the spectators where the wire really was, he probably threw his head back further than usual, when it gravitated, fell back into the pharynx, and passed into the stomach.

In the absence of medical advice, he at once took an ordinary store bottle of castor oil, in hopes that the wire would be safely carried through the intestinal canal. No pain in the stomach followed, and he worked steadily until the 15th of March, a period of two months, when he was idle a couple of days, owing to the mill shutting down for repairs. He was then seized with an acute pain on the right side of the abdomen, about three inches from the umbilicus. On the 16th he started in an ambulance for Prescott Barracks, distant sixty-five or seventy miles, where he arrived on the evening of the 17th. During the journey he suffered great pain from the jolting of the vehicle. A hypodermic of Magendie's solution of morphia, ℥x., gave him relief and rest. He pointed out and covered with the end of his finger a tender spot about three inches to the right and below the umbilicus. No tumor or lump was then perceptible. A slight cathartic was given him, and strict rest in bed enjoined. A lump or tumor then gradually formed, becoming more and more defined and more and more tender to the touch in the spot he first pointed out. Pulse and temperature were normal. The man insisted that the wire had lodged at this point, and the sequel proved that he was correct.

*Operation.*—The case from its surroundings was calculated to arouse deep sympathy and anxious solicitude as to the result. The operation was freely discussed pro and con, and Mr. Tudor being a fair type of the independent frontiersman, endowed with good common sense, determined that an operation was the only thing to look forward to for permanent relief, and insisted on its performance as soon as possible. Accordingly, on the 4th of May, all preparations having been made, the following operation was performed under Lister's antiseptic process: the surface of the abdomen over the tender spot and tumor was carefully shaved and then sponged with ether. The tender spot was located and marked by a cross scratch on the skin. The patient was etherized, and an incision about three inches in length was made through the skin, three and one-half inches to the right of the umbilicus, parallel to the border of the rectus and in the direction of the linea semilunaris. As the operation advanced it was found that the integuments and muscles were closely adherent and coalesced with each other, no doubt from sympathetic inflammation with the internal lesion, necessitating constant and great caution in the use of the knife and requiring the diligent use of the director, as the suspected spot was approached. The incision had now to be made an inch longer, in order to give more working room. It was reasonable to suppose from the condition of the integuments, that there had been sufficient exudation of plastic lymph around the foreign body to cause adhesions, not only around where it may have penetrated the intestine, but, that adhesions had been made with the opposite peritoneal walls. As near as could be judged from the result, this proved to be correct. The wire gradually became more and more defined as the tissues yielded in the gradual approach. At this step in the operation it was considered best to find out if any abscess had formed, and the fine point of an hypodermic syringe was passed into the tumor. Nothing but serum filled the cylinder.

The hemorrhage was insignificant, and readily controlled without ligatures. It was, I think, wisely determined not to incur the risk of opening the peritoneal cavity, but to depend upon the supposed (now almost confirmed) fact of adhesions existing between the intestines and the opposite peritoneal wall. The middle of the wire was at length seized with a pair of forceps; another pair was also applied, so that when the wire was divided between them by heavy cutting-forceps, each end was readily extracted from its bed. The wire proved to be of copper, $2\frac{5}{16}$ inches in length, No. 14 American, or No. 16 Birmingham measure. The hemorrhage having stopped, a drainage-tube was laid at the bottom of and whole length of the incision.

Silver-wire sutures to the number of three were passed through the muscles and integuments, bringing the edges close together. Three others were passed through the skin only. Antiseptic dressings were carefully applied, and firmly secured by frequent turns of bandages around the body. Fifteen minims of Magendie's solution were given hypodermically, and the patient removed to his bed. In the evening at nine o'clock he was resting comfortably. On being aroused, he recognized me, and asked about the wire. On being told that it had been found and removed, that it would not trouble him any more, he expressed an opinion about it more forcible than polite, and again relapsed into sleep.

The patient's rapid progress to recovery after the operation was very gratifying and satisfactory. The following night he was seized with a severe pain in the small of the back, for which p. opii., gr. ii., was administered with relief. A profuse perspiration, with flushed face, followed on May 6th. Both were easily controlled by the hypodermic injection of Magendie's sol., ℥x., given at required and necessary intervals. Valentine's meat juice, ʒj., diluted, was given every four or six hours. Thermometrical observations were taken every four hours; and at no time did the thermometer show a higher range than 100¾°. Pulse averaged 112; respiration, 36. At 9 A.M. of the 6th the dressings were removed and examined under the spray. The wound looked very favorable. The dressings were reapplied. At 12.30 A.M. of the 8th, the temperature was 98°; pulse, 98; respiration, 32. Beef essence was now given every two hours. On the 9th, was allowed egg and milk. On the 10th, the wound was redressed under the spray. Not a drop of pus was to be seen; dressings were clean and sweet. The drainage tube was removed. On the 13th, eight days after the operation, the sutures were removed under the spray. Union had taken place the whole length of the wound. Salicylated cotton, secured by a bandage, was applied, and ol. ricini, ℥j. given, with the effect of bringing away a great quantity of fæces. From this time he made rapid progress to recovery. On the 19th, all dressings were removed, and he was allowed to sit up and walk around the ward and the hospital.

PRESCOTT BARRACKS, PRESCOTT, A. T., May, 1879.

EXCESSIVE LOCHIA.—Dr. Hugh Miller, of Glasgow, recommends the following in excessive lochial discharge accompanied by a relaxed condition of the uterus:

℞. Quin. sulph..... ʒss.
Acid. hydrobrom..... fʒvj.
Aquæ font. q. s., ad..... fʒij.
M.
Sig.—Teaspoonful three times daily.

# Progress of Medical Science.

EXTIRPATION OF THE LARYNX.—The entire history of the interesting case in which Dr. Foulis, of Glasgow, removed the larynx, has never been published. It appears that at the time of the operation there was pulmonary disease, though in abeyance. After the third operation, the patient was admitted by his former employer to work as telegraph clerk, and for eleven months was able to keep at his post, wearing the artificial larynx night and day. Toward the end of the year, however, he noticed "occasional streaks of blood in the mucus," and the lower edge of the wound in the neck became slightly excoriated, probably from the downward pressure of the tube. On Christmas-day he was carefully examined, and was found to have advanced pulmonary difficulty, "the apices of both lungs being dull to percussion, and giving a prolonged hollow expiration-sound," "while the cough, the hæmoptysis, and the night-sweating were worse than ever before." The interior of the trachea showed extensive ulceration, presumed to be tubercular. He died March 1st, 1879. No post-mortem examination was permitted. The conclusions derived from the case are favorable, according to the operator, who intimates that the extension of a malignant disease was arrested, the patient dying of an old constitutional difficulty. He enjoyed a year of useful and comfortable existence, living, in all, seventeen and a half months after the operation, surviving it a longer period than any similar case, so far as is at present known.—*Lancet*, March 29, 1879.

MAHOMED ON BRIGHT'S DISEASE.—An interesting study of the Records in Guy's Hospital, London, by the medical registrar, Dr. Mahomed, have led him to the following conclusions with reference to the important points now at issue in the history of Bright's disease:

1. Albuminuria, though occasionally produced by other causes, is generally the result of increased pressure in the capillaries of the kidney, either venous or arterial.

2. Neither albuminuria nor dropsy are usually present in chronic Bright's disease; when present they indicate acute or epithelial changes.

3. The blood-condition which produces the high arterial pressure of Bright's disease is the primary condition, and is not secondary to deficient renal excretion, as held by Bright himself and subsequently by nearly every authority upon the subject.

4. The most generally accepted account of the disease and its symptoms fail to recognize it in by far the larger number of cases in which it exists.

5. Cases present themselves bearing the aspects of various form of heart disease, of bronchitis, of cirrhosis, of cerebral disease, and many other conditions, in which we can only discover the existence of chronic Bright's disease, as the *fons et origo mali*, by the signs of high pressure in the arterial system.

6. The cardio-vascular changes, when found alone, may be taken as evidence of the existence of the disease.

7. Similar changes to those found in the kidneys exist also in the mucous membranes, in the skin, and in other parts.

8. The condition of high pressure is almost constantly present in old age, and, in one form or other, brings about a large proportion of the deaths in persons over fifty.

9. The existence of high arterial pressure in the pulse of young persons indicates a diathesis, and is of grave importance.

10. The same condition, being of frequent occurrence, after the age of fifty, is not of such great importance unless present to an excessive degree; it then produces serious symptoms, and calls for active treatment.

Some of these propositions have already been enunciated by Gull and Sutton, though they have not met with general acceptance. It is plain that the root of the matter has not been reached as yet.—*Lancet*, March 29, 1878.

SECTION OF THE EPIGLOTTIS.—Dr. William Porter, of St. Louis, alluding to the recorded cases in which portions, if not the whole, of the epiglottis, has been severed, either by accident or disease, records three cases of his own, in one of which he removed three-fourths of the organ for a neoplasm. The main disturbance in such cases seems to be in phonation; the vowel sounds "a" and "e" are less distinct, and the voice harsh if the cartilage is irregular and jagged. Deglutition, on the other hand, becomes easy after a time, for the base of the tongue may so cover the larynx, and the muscles and mucous folds so close it, that the loss of the organ is largely compensated for. Usually, when ulceration sets in, the process of destruction is so slow that the parts gradually accustom themselves to the loss. After an accident, as when Murat lost a portion of the epiglottis from a musket-ball, it may be necessary to introduce an elastic tube into the stomach as an artificial aid. Dr. Porter did not find this necessary in his case, which was as follows: for some five months there had been difficulty in swallowing, with laryngeal pain and cough. On laryngoscopic examination a large nodule was found occupying three-fourths of the free edge of the organ. After some weeks of local treatment, which accomplished nothing, the diseased mass, including fully one-half of the epiglottis, was severed. Semi-solid food was then ordered, but no artificial aid was resorted to, as the long-continued disease of the part had accustomed the patient to supply its loss. The wound healed in a fortnight, and there has been little functional disturbance. The following conclusions are given: if a benign growth of the epiglottis exist, or there is malignant disease which has not as yet implicated the surrounding parts, removal of the epiglottis, or such a part of it as is involved, is practicable and justifiable.—*American Journal of the Medical Sciences, April*, 1879.

DEXTRO-QUININE AS AN ANTI-PERIODIC.—Dr. C. O. Dunlap, of Chillicothe, Ohio, has had some experience with dextro-quinine, used as a substitute for the sulphate. He has tried it in fifteen cases, and in all with success. His dose was dextro-quinine, gr. v., and ext. acconit. rad., gr. ½, repeated every two hours during the night. He thinks that the amount of the medicine need not be larger than of the sulphate, and he has never known it to produce ringing in the ears. His section of the country, being highly malarious, has furnished him an excellent opportunity for testing it, and he states that with it may be obtained "all the good results of the sulphate of quinine with none of the objectionable features of the latter."—*New Orleans Med. and Surg. Journal—Ohio Med. Rep.*

MALARIAL FEVER.—An interesting treatment for malarial fever is reported from Mount Sinai Hospital. Quinine, Fowler's solution, Warburg's tincture, eucalyptus, chloroform, whiskey, had all proved unavailing, when the patient was transferred from the lower to the upper floor. Thirteen days afterwards there had been no relapse.—*New York Medical Journal*, April.

# THE MEDICAL RECORD:

## A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, June 28, 1879.


## THE OBSTETRIC FORCEPS.

A DECIDEDLY noteworthy debate recently took place at the London Obstetrical Society. The subject of discussion was the obstetric forceps, and the promised interest in the matter gathered not only the leading obstetricians of London, but also representatives from Dublin, Edinburgh, and many of the provincial towns of England. Dr. Robert Barnes opened the debate, and presented the subject in an admirably clear and scientific manner.

The forceps is an instrument that represents in great perfection the vagaries of the obstetrical mind and the ups and downs of surgical fashion. Even now, according to the idiosyncrasy of its particular owner, it lies in neglect and rust, or exhibits the sleekness that comes of daily application. The indications for its use, to be sure, are much more definite than formerly; still they are far from being peaceably agreed upon, and the conclusions reached by so many experienced men in the present debate may well be regarded with interest.

At the outset the question was much narrowed down and simplified by the assumption that the use of forceps in lingering labor only need be discussed, thus excluding such complications as convulsions, hemorrhage, syncope, prolapse of the cord. It was further premised that, in attempting to draw conclusions the comparison should be made between the results of the use of the forceps and its alternatives, including in the latter expectancy, oxytocics, manipulation of the uterus, and other measures.

In considering the value of the forceps, the question divides itself again into its use in low operations, when the head is in the inferior strait, and in high operations, when the head is seized at or above the brim. In the former case the parts are almost always dilated, and there is need only of a little more *vis a tergo* for the expulsion. We may then employ either ergot, the forceps, or simple expectancy. The superior advantages of the forceps in such cases was universally conceded by those who took part in the discussion, and their decision was undoubtedly the correct one. If skilfully done—and we must base our rules upon the supposition of sufficient skill—it saves the mother much unnecessary pain, lessens the likelihood of still-birth, and last, though perhaps not always least, it saves time and inconvenience to the physician. It is in this field especially that the forceps deserves to become more popular, and the unanimous opinion of the Society on the point will doubtless have a beneficial effect. It is here, to be sure, where much of the abuse of forceps has crept in, but an operation essentially good does not deserve to be condemned on account of the liability to frequent and careless indulgence.

The principal point, however, of the discussion was in regard to the use of forceps in lingering labor when the head is at or above the brim. And here too, although there was a great deal said in developing the matter, the conclusions were tolerably unanimous. As given by Dr. Barnes, they were essentially that when in lingering labor the head is in the pelvic cavity or engaged in the pelvic brim, and it is known that there is no deformity, the forceps is better than its alternatives. Further, in lingering labor, when the head is resting on the pelvic brim, the liquor amnii being discharged, and there is slight or no disproportion, even though the cervix uteri be not dilated, the forceps is generally better than its alternatives. In proportion as the head is arrested high in the pelvis, in the brim or above the brim, the necessity, utility, and safety of forceps become less urgent. The propriety of applying forceps when the os is not dilated is the thing to be most seriously considered; but if at the time of such application the os is dilatable, it seems to be conceded that the operation is justifiable and even imperative. An analysis of the cases of Dr. George Johnston, who has been the prominent advocate for the use of the forceps in the high operation, shows that the danger is in direct proportion to the small size of the os.

Of course, as the outcome of such a discussion, we look for some new "rules for the use of the forceps." The wisdom of the Society was shown in its cautious avoidance of such committals.

One person, however, ventured the sufficiently broad assertion that the physician should never use the forceps to save his own time, and never allow the patient, if the parts are dilated, to suffer a tedious and painful labor when the forceps can relieve her.

The conclusions above indicated essentially harmonize, we believe, with the views entertained by the best obstetricians on this side of the Atlantic. They will do much to give a more definite field to the forceps, and moderate the impassioned rhetoric that is

still, in the name of meddlesome midwifery, poured upon that useful instrument.

In reading the discussion, however, it is impossible not to notice and regret one serious defect in the statistical method by which the conclusions were to a large extent worked out. Thus the statistics for and against the forceps bore almost exclusively upon the life of the mother and the child. But this is not enough; for, the subsequent condition of health or invalidism should also be taken into account. It counts for but little to say that the mother lived, if she lived with the parturient passage torn, with local inflammations or displacements; nor should the occasional injuries to the child fail to be considered. These points were brought up in the discussion, but not in the statistics, and until we have accurate data concerning such results, the frequency and extent of the use of the obstetric forceps will very properly continue a question open to much discussion. The opinion expressed upon this subject by Dr. T. Addis Emmet, of this city, is too important to be omitted, namely, that skilful instrumental delivery has rarely, if ever, any agency in the production of vesico-vaginal fistula, and that the direct cause of this accident is always the delay in delivery after impaction has taken place.

### MEMORIAL TABLET.

We direct attention to a request made by the committee appointed at the last meeting of the State Medical Society, to obtain the names of medical men in this State who lost their lives in the discharge of professional duties. Some years ago a memorial tablet was erected by the Medical Society of the County of New York, to those who died of ship-fever at Quarantine Hospital, and the proposition now is to make a memorial roll to be published in the Annual Transactions of the State Medical Society. We hope all will respond to the request of the committee.

### REPORTS OF STATE MEDICAL SOCIETIES.

The first in our series of reports from State Medical Societies was from Illinois, which held its annual meeting at the city of Lincoln, beginning May 20th. The usual number of papers in the various departments of medicine were read, and embraced subjects of practical interest. A report from a special committee with regard to expert evidence was presented, and additional steps taken looking towards asking the necessary legislation to secure adequate compensation for physicians who are compelled to make investigations and testify in courts of law. We hope the society will succeed in this direction.

The Medical Society of the State of Pennsylvania held its annual meeting in the city of Chester, beginning May 21. That body is evidently in good working order. The papers read were numerous, and many of them were of a high degree of excellence. Some important questions were discussed, and a slight amount of gratuitous advice given to medical journals. The question of the appointment of female insane asylum superintendents was again brought up, and secured the indorsement of the society by a rather meagre majority. The unpleasant feature of the proposed law is the clause, making the appointment of such superintendents obligatory. The important question of expert testimony did not reach a tangible form.

The Medical Society of the State of New Jersey held its one hundred and thirteenth annual meeting, at Englewood, beginning May 27th. The report of the standing committee is an important item in the transactions of the society, and this year embraced a résumé of the subject of epidemics, new remedies, and a report on necrology. Besides this report, the usual number of papers were read, and the meeting, on the whole, was a success.

The Connecticut Medical Society held its annual session in the city of Hartford, beginning May 28th. Its proceedings were characterized by the usual activity and interest. The proposed law to rid the State of medical tramps was so full of complications and vagaries that it failed to receive the support of the society. Exactly how a person can be prevented from lecturing upon any subject he may choose, providing he can obtain an audience and does his work in decency and in order, unless it be by mob interference, has yet to be determined. A committee was appointed to report upon the practicability of the metric system.

The Ohio State Medical Society held its annual meeting in the city of Columbus, beginning June 3d. Its proceedings were usually harmonious. Several valuale papers were read, and the metric system received an unmistakable rejection. The discussion was animated, and the result will, doubtless, in time, be reversed. The society adopted a commendable resolution, requesting Congress to abolish the duty on quinine.

The Arkansas State Medical Society held its annual meeting in the city of Little Rock, beginning May 14th. A State board of health was appointed, which was a step in the right direction. An interesting report upon yellow fever was made by Dr. Jennings, and reference made to some noteworthy facts in connection with the transmission of that disease.

The Massachusetts Medical Society held its annual meeting in Boston, beginning June 10th. A number of interesting papers were read, and, in the president's address, special reference was made to the question of admission of women to medical schools and the co-education of the sexes. Theoretically, it is well; but practically, it is unpleasant, if not unwise.

The Rhode Island Medical Society held its annual meeting in the city of Providence, June 10th, and we

are pleased to learn that the general interest in its welfare is increasing. The president's address was an important feature of the proceedings, and was devoted to the temperance question from a medical standpoint. The use of alcohol is proper, but its abuse leads to disastrous results. Whether the abuse and the use are not so intimately related as to render them permanent associates has been a mooted question for a long time. We incline to the opinion that the one does not necessarily follow upon the other.

The Michigan State Medical Society held its annual meeting in the city of Detroit, beginning May 11th. The proceedings were, as usual, interesting, and at times especially lively. The general results obtained seemed to be satisfactory, although the society rather unceremoniously sat down upon the metric system, not even giving it the benefit of a prolonged discussion.

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CLOSE OF VOL. XV.

IN closing the fifteenth volume of the RECORD, we take occasion to express our obligations to our large list of contributors and to the members of the editorial staff for the substantial aid which they have rendered. The change in size of the journal has, we trust, added to its value, in not only giving us an opportunity for publishing lengthy papers, but in enabling us to grant greater facilities for the expression of honest opinion in the departments of reviews, reports of societies, correspondence, and new instruments. The character of the contributions which have appeared in our columns need no special notice from us, for they have been largely from men extensively and favorably known in the profession, and whose names are a sufficient guarantee for the excellence of the productions. Our working corps remains substantially unchanged, and it shall be our continued aim to increase the usefulness of the journal, at the same time adapt it to the general wants of the profession, and to make it even more acceptable to our subscribers.

In the editorial discussion of the medical topics of the day it has been our endeavor to be impartial and truthful, and if we have erred in judgment it is a failing that is human.

In order to furnish the required amount of space for accumulated reviews, society reports, and correspondence, our last number was largely devoted to these departments. With the present number we resume the publication of original lectures and other material which, for reasons already given, have been delayed.

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IRRITABLE BLADDER.—Dr. Piffard, of this city, speaks favorably (*Chicago Med. Jour. and Exam.*) of a tincture of "shepherd's purse" (*capella bursa pastoris*) in this affection. Ten to thirty drops of tinct. thlaspi, as it is called and sold at homœopathic pharmacies, several times a day, he has found to act satisactorily.

# Reviews and Notices of Books.

A PRACTICAL TREATISE ON SURGICAL DIAGNOSIS, DESIGNED AS A MANUAL FOR PRACTITIONERS AND STUDENTS. By AMBROSE L. RANNEY, M.D., Adjunct Professor of Anatomy and Lecturer on Minor Surgery in the Medical Department of the University of New York. William Wood & Co., 27 Great Jones St., 1879, pp. 386.

IN order to judge of the value of a book it is well to ascertain the object the author had in view in its preparation, and then to see how far it fills the place for which it was intended. The author states in his introduction that the volume was published at the request of his private class, and adds: "As a text-book for students it will, I trust, aid memory by presenting the symptoms of disease in *marked contrast;* while, to the practising physician, it may prove a book of easy reference when questions of diagnosis arise leading towards doubt or error." It is intended then, first, for students to aid memory; secondly, for busy practitioners as a book of reference.

The book is divided into eight parts: I. Diseases of the Blood-vessels; II. Diseases of the Joints; III. Diseases of Bone; IV. Dislocations; V. Fractures; VI. Diseases of the Male Genitals; VII. Diseases of the Abdominal Cavity; VIII. Diseases of Tissue.

The diseases to be differentiated are arranged in two columns down the page, "so as to allow the symptom of each to be reviewed separately by reading from above downward, while by reading across the page the points of contrast become prominent."

One of the first requisites of such a book is accuracy, and secondly, clearness of description. The chapters on diseases of the male genitals, fractures and dislocations, are the best, while those on diseases of joints and bones contain too many errors. Thus, on page 34 the compiler states that the "constitutional disturbance in synovitis is slight." This may be true in a certain sense of the sub-acute variety, but it is certainly not so of the acute. Bryant states that "the constitutional disturbance is very great." On page 42 he states that "dislocation (of the head of the femur) is frequent in the femoral variety of hip-joint disease, and that dislocation into the pelvic cavity often occurs in the acetabular variety." It is a well-known fact that a true dislocation of the femur in hip-joint disease is rare, and that perforation of the acetabulum by the head of the bone is *very uncommon*.

The symptoms of sacro-iliac disease given are very faulty, and but little aid in diagnosis can be gained from their study.

On page 54 it is stated, in differentiating morbus coxarius from infantile paralysis, "that in the former a history of injury followed by pain in the knee, etc., is present:" in the latter, "a history of gradual loss of muscular power is present." The access of paralysis is *always* sudden in infantile paralysis, and "a gradual loss of muscular power" would exclude this disease. He makes no mention of acute periostitis, nor of disease of joints beginning in the bone. He states that "rickets does not tend to shorten life."

He lays down the rule that there is no discharge in stricture of the rectum. This may be true before ulceration has taken place. Allingham, however, states "that stricture of the rectum without ulceration is a somewhat uncommon affection." There are many other passages we had marked, but space will not allow of their reference. As a book for students "to aid memory," it cannot take the place of systematic reading,

in that it encourages them to trust to their memories without a clear understanding of the subject. With "cram-books" the archives of our libraries are already too well filled. As an aid to the general practitioner it is too condensed and contains too many errors, with only the more common symptoms of diseases to give the satisfaction obtained by consulting a more complete treatise. In regard to the chapters on dislocations and fractures, more efficient aid in diagnosis can be obtained from Hamilton's work. The chapter chiefly useful to the general practitioner is that on diseases of the male genitals. For the purposes for which the book was prepared it seems to us it has not reached the standard required. The type is large and clear, and the general appearance of the book reflects credit upon its publishers.

TRANSACTIONS OF THE AMERICAN GYNECOLOGICAL SOCIETY. Vol. III. For the year 1878. Boston: Houghton, Osgood & Co. The Riverside Press. Cambridge. 1879.

BY a series of happy coincidences the third volume of the Transactions of the American Gynecological Society has finally made its appearance. It is now new, and when Dr. Goodell, of Philadelphia, reads his admirable address "On the Relation of Neurasthenia to Diseases of the Womb," he will recognize one of his ancient productions, full of careful study and suggestion. When Dr. J. C. Reeve, of Dayton, Ohio, scans his paper "On Rupture of the Perineum without Implication of the Vulva," he can have opportunity to say, "This occurred once, but it was so long ago that much might be added now." When Dr. J. Marion Sims reviews his exhaustive paper "On the Surgical Treatment of Stenosis of the Cervix Uteri," he will be pleased to know that the dust has finally been shaken from his proof-sheets; and Dr. James P. White will rejoice that his interesting paper "On Extra-Uterine Pregnacy, with Discharge of Fœtal Bones through the Bladder," has been delivered with safety, as well as his patient.

"The Necessity for *Early* Delivery, as Demonstrated by the Analysis of 161 Cases of Vesico-Vaginal Fistula," a paper read by Dr. T. Addis Emmet, of New York, retains its original excellence, notwithstanding its substantial appearance in his work on gynecology, issued several months ago.

Drs. H. P. C. Wilson, of Baltimore, and R. A. F. Penrose, of Philadelphia, we fear have had reason to regret the loss of life that may have occurred from a lack of the practical suggestions given in their respective papers "On the Treatment of Post-Partum Hemorrhage."

Besides the papers referred to, there are *thirteen* written by such representative men as Drs. J. T. Johnson and S. C. Busey, of Washington, D. C.; W. H. Byford, of Chicago; W. L. Richardson, of Boston; H. J. Garrigues, of New York; A. H. Smith, of Philadelphia; H. F. Campbell, of Ga.; T. Parvin, of Indianapolis; I. E. Taylor, of New York; E. Van de Warker, of Syracuse, N. Y.; A. Reeves Jackson, of Chicago; and Nathan Bozeman, of New York.

The volume contains a memorial of Edmund Randolph Peaslee, M.D., LL.D., with portrait, by Fordyce Barker, M.D., LL.D., of New York; also a memorial of Washington Lemuel Atlee, M.D., with portrait, by Dr. T. M. Drysdale, of Philadelphia.

There has been no change either in type or paper, but a worthy improvement in binding has been made, and to the volume proper has been added an "Index of Obstetric and Gynecological Literature of all Countries for the Year 1877." The latter is the work of the Secretary, Dr. James R. Chadwick, of Boston, with the co-operation of Dr. J. S. Billings, U.S.A., in charge of the National Medical Library at Washington, and is an important and valuable addition, that reflects high credit upon the authors.

The present volume maintains the established high standing of the American Gynecological Society, and although its lustre is slightly dimmed by age, its original worth entitles it to a prominent place in the library of every obstetrician and gynecologist.

# Reports of Societies.

## MASSACHUSETTS MEDICAL SOCIETY.

*Held in Boston, June* 10 *and* 11, 1879.

(Special Report for THE MEDICAL RECORD.)

THE Annual Meeting of the Massachusetts Medical Society was held in the Horticultural Hall, Boston, on Tuesday and Wednesday, June 10 and 11, 1879.

The President, DR. GEORGE H. LYMAN, called the meeting to order at noon on Tuesday, and the reading of papers was begun.

### CASES OF INSANITY FOLLOWING ACUTE DISEASES.

This paper was read by DR. JAMES B. AYER, of Boston. He reported briefly two cases of pneumonia, in which, after the crisis had passed, acute maniacal symptoms supervened. In one they subsided in the course of two days; but in the second, now at the end of twelve weeks, there was marked improvement in the physical condition of the patient, but in regard to her mental condition the prognosis was uncertain. The cases reported were typical cases of insanity following and caused by an acute disease, which both poisoned the blood and exhausted the patient. Such cases could never be mistaken for delirium. The reader then discussed the difference between mania and delirium. Whether or no there was a specific difference, there was a well-marked clinical distinction between them. The transitory form of post-febrile insanity was rare, but cases of the more grave character were found in all asylums for the insane. He reported statistics which he had collected regarding the frequency of cases of post-febrile insanity as compared with other cases committed to asylums, and in conclusion stated that we could not too carefully watch the convalescence of our patients recovering from acute diseases, remembering that insanity might follow the mildest cases, and that it very frequently appeared in advanced convalescence, when the patient was considered nearly well.

In the discussion following the reading of Dr. Ayer's paper one Fellow reported that he had seen one case of acute insanity follow typhoid fever during convalescence. It recovered after residence in an asylum. Another case following mild acute pneumonia died within a week.

Another Fellow remarked that the pathological condition in such cases was probably due to malnutrition and cerebral anæmia.

A paper on

### THE PHYSICIAN'S TRUE POSITION IN SOCIETY

was read by DR. ROLLIN C. WARD, of Northfield.

### INTESTINAL CATARRH OF INFANTS

was the subject of a paper by DR. GEORGE K. SABINE, of Brookline. He stated that many of the deaths

which were reported as resulting from cholera infantum were erroneously classed under that head. The name should be confined to those cases which ran a very rapid course, and in that and many other respects resembled true cholera. Its causation and character were described. The affection commonly termed simple diarrhœa was referred to; it was a simple catarrh of the intestines, the usual beginning of all the other diarrhœal diseases. The cause of the trouble might frequently be seen in the stools to be in the form of particles of undigested food. A more serious condition was that in which the intestinal follicles were more or less ulcerated. Improper food, given at improper times and intervals, an elevated temperature, impure air, and all those conditions which go to make up bad hygienic surroundings, were given as causes, and the most important points to be attended to in the treatment was of course to strive to remove those causes. As to food, if the child had been recently weaned let it be again nursed, if practicable. If not, the most appropriate food was cow's milk. A little bicarbonate of soda or of potassa added to the milk would aid in preventing the casein from coagulating in too large lumps. The soda was perhaps preferable, and half a drachm dissolved in four ounces of water, and a teaspoonful of the solution added to each bottle of milk, would often prevent serious trouble. It helped to prevent constipation.

An excellent artificial food for infants was that recommended by Dr. Channing of Providence, R. I., which consisted of equal parts of cream and water, with the addition of a little glycerine and lime-water.

In medication brandy stood first on the list. It stimulated the digestion, and, above all, allayed the pain. It might be given in doses of from five to fifteen drops in water (without sugar), once in two hours. The subcarbonate or subnitrate of bismuth, in doses of not less than ten grains, was also a valuable remedy. Opiates should be avoided if possible. The custom of giving young infants castor oil, calomel, or any other cathartic, especially after the trouble has fairly commenced, could not be too severely condemned.

An animated discussion followed the reading of the paper, one speaker remarking that in the treatment of such cases he regarded the subnitrate of bismuth as the "sheet anchor" in therapeutics. He commonly added a little carbolic acid to it. Another mentioned the good results which had followed the establishment of the diet-kitchens in Boston, where the sick poor, on an order from the district dispensary physician, could obtain fresh eggs, broth, and milk. Others advocated the use of condensed milk, some of the canned and sweetened, others of the "plain" condensed milk which was brought to the houses every other day. Another speaker thought the reader's criticism against the occasional use of castor oil was unjust. Another recommended rice-water and cream in the treatment of cases of the acute intestinal catarrh of infants. Another spoke of the good effects of discarding the bottle and tube in artificial feeding, and teaching the child to drink from a cup. Another alluded to the advantage to be derived from the cold-water bandage.

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### Wednesday, June 11th.—Second Day.

On Wednesday morning the Society reassembled, and was called to order by the President. After listening to the reading of the records of the names of sixty new and of thirty-three deceased Fellows, and of the Treasurer's report, a committee, which during the past year had obtained the views of the Fellows of the Society regarding the list of drugs which should be placed in the proposed revised edition of the pharmacopœia, presented its report.

#### Pharmacopœial Convention, 1880.

It was voted to send three delegates to the National Convention for the Revision of the Pharmacopœia, which is to be held in Washington, D. C., in May, 1880.

The reading of papers was then resumed.

#### The Trials and Triumphs of the Country Doctor

were described in an interesting and racy manner by Dr. Benjamin D. Gifford, of South Chatham.

A paper on

#### Insane Drunkards

was read by Dr. Theodore W. Fisher, of Boston. The term insane drunkards should in strictness be applied only to those persons made insane by drink. Of that class there were several varieties: 1. Intoxicated persons who exhibited in some cases the phenomena of transient madness; 2. Cases of delirium tremens; 3. Patients with *mania à potu* or acute mania from the immediate effects of drink; 4. Chronic mania of alcoholism; 5. Dementia of alcoholism; and besides those there was scarcely any form of mental disease which might not in some cases be due to the abuse of alcohol. A sixth variety known as dipsomania occupied a somewhat debatable ground, some regarding it as a disease due to excessive habitual drinking, while others considered it a form of insanity due to hereditary or constitutional causes, and characterized by periodical attacks of drunkenness. It did not seem unreasonable to suppose that drink might produce in some cases simply a mania for getting drunk. The condition of dipsomaniacs was fully described, the importance shown, and yet the difficulty acknowledged of having them placed in proper asylums for a sufficient length of time.

#### Some Diseases of the Eye Requiring Immediate Treatment

was the subject of a paper by Dr. Charles H. Williams, of Boston. The symptoms, differential diagnosis, pathological appearances, and treatment of glaucoma, iritis, and ophthalmia neonatorum, were discussed.

Following the introduction of delegates from other State medical societies, and the reports from delegates to other medical organizations, the

#### Annual Discourse,

entitled, *Many Things Remain to be Done*, by Dr. George W. Garland, of Lawrence, was delivered.

The orator remarked that there was never a greater untruth uttered than the saying, "When a man has once got his name up he can lie in bed till noon." Nothing but untiring industry would enable us to advance or even to maintain the high position we now occupied. Our work could not be slighted with impunity. The reason why, in the history of the medical men of that State, that here and there one arose above the common mass of physicians was, that while he lived he did something to elevate the standard of medicine. The orator advocated the influence of the Society in securing the universal establishment of the metric system of weights and measures. Reference was made to the good work of the members of the Society in sanitation and hygiene. Much yet remained to be done in those departments of science. Regarding the admission of women to the medical schools and to the Society, the orator stated that in his opinion, if

women were to be admitted to medical schools and were to be recognized as physicians, there could be no more impropriety in co-education than there was in co-practice or co-consultation. The same qualifications should be strictly adhered to in *all* cases for admission into the Society, and then there could be no valid reason for excluding any human being from the Society.

After passing a vote of thanks to the orator for his able and eloquent address, the Society passed to the Music Hall, where dinner was served.

The following are the officers for the ensuing year:

*For President*—Dr. George H. Lyman, of Boston.

*For Vice-President*—Dr. David P. Smith, of Springfield.

*For Treasurer*—Dr. Frank W. Draper, of Boston.

*For Corresponding Secretary*—Dr. Charles W. Swan, of Boston.

*For Recording Secretary*—Dr. Francis W. Goss, of Roxbury.

*For Librarian*—Dr. David H. Hayden, of Boston.

*For Orator*—Dr. Thomas H. Gage, of Worcester.

*For Anniversary Chairman for the Annual Meeting in* 1880—Dr. J. C. Warren, of Boston.

The next Annual Meeting will be held in Boston, on the second Wednesday in June, 1880.

## RHODE ISLAND MEDICAL SOCIETY.

*Sixty-seventh Annual Meeting, held in Providence, June 10, 1879.*

(Special Report for THE MEDICAL RECORD.)

THE sixty-seventh annual meeting of the Rhode Island Medical Society was held in Lyceum Hall, Providence, June 10th, the President, Dr. EDWARD T. CASWELL, in the chair.

DR. C. W. PARSONS read the report of the trustees of the Fiske fund, as follows:

### REPORT OF THE FISKE FUND.

After a careful examination of the essays presented, the trustees awarded the premium of two hundred dollars for the best essay on the "Artificial Feeding of Infants," to an essay bearing the motto *vivat infans*, and found the author to be Dr. Oliver C. Wiggin, of Providence. The premium of two hundred dollars for the best essay on "Cholera Infantum; its Causes, Nature, and Treatment," was awarded to an essay bearing the motto, *Nec scire fas omnia*, and the author was found to be Dr. Charles E. Banks, of Portland, Me. On the third subject for 1879 the trustees made no award.

They proposed the following subjects for 1880:

1. The true value of electricity in its application to surgery.

2. The sympathetic nerve—its relation to disease.

For the best essay on either of those subjects worthy of premium they offered a premium of two hundred dollars, on the usual conditions.

### REPORT OF BOARD OF CENSORS.

DR. W. O. BROWN read the report of the Board of Censors. Dr. Henry J. Bigelow, of Boston, was recommended for honorary membership of the Society, and Dr. John W. Sawyer for honorary chairman.

### REPORT OF COMMITTEE ON PUBLICATION.

DR. W. O. BROWN read the report of the Committee on Publication, giving an account of the publication of the second part of the second volume of Transactions.

### REPORTS OF DELEGATES.

DR. JOB KENYON read a report of his visit to the meeting of the American Medical Association, with notes of the papers presented there.

Dr. JAMES H. ELDREDGE read a report of a visit to the annual meeting of the New Jersey Medical Society, with notes of the proceedings.

### SUPERINTENDENTS OF THE INSANE.

DRS. RAY, KIRKBRIDE, and NICHOLS, from the Convention of Superintendents of the Insane, were introduced to the Society. Dr. Ray made a brief address, expressing his long interest in the Rhode Island Medical Society, his confidence in its increased prosperity, and making allusion to former members of the Society. Dr. Kirkbride expressed the reliance of the superintendents of the insane upon the medical profession, and spoke of the honorable record of the State of Rhode Island in its care of its insane, which he did not doubt was largely from the influence of this Society. Dr. Nichols gave some pleasant recollections of his student life in Rhode Island.

### DELEGATES FROM OTHER STATE MEDICAL SOCIETIES.

DR. J. F. NOYES, of Michigan, an honorary member of the Society, made a few remarks, regretting the necessity that compelled an almost immediate departure from the meeting, and conveying the fraternal greetings of the Michigan Medical Society.

DR. PENNINGTON, of New Jersey, extended the congratulations of the New Jersey Medical Society to the Rhode Island Society, and expressed his personal pleasure at meeting the members.

DR. HUTCHISON, of New York, gave some account of the organization of the New York Medical Society.

DR. DAVIS, of Massachusetts, expressed his pleasure at meeting the Rhode Island Society, and spoke of the progress of medical science as illustrated in particular by the attention given by national and State governments to the condition of sanitary reform. Dr. BIELDY, of Massachusetts, extended the hearty greetings of the Massachusetts Medical Society.

### REGISTRATION OF PHYSICIANS.

DR. ARIEL BALLOU, from the Special Committee on Registration of Physicians, reported that the subject had not yet been fully considered, and the committee was continued.

### EXPERT TESTIMONY.

DR. JOB KENYON, from the Committee on Expert Testimony before Courts, reported that a petition had been presented to the legislature for inquiring into the subject by the Judiciary Committee, and that a measure would be brought forward and considered at the next session. The committee was continued with further powers in relation to the subject.

### OBITUARIES.

The Secretary, DR. W. E. ANTHONY, read obituary notices of deceased members of the Society: Dr. Samuel Augustus Arnold, Dr. Almond Clark Whitman, and Dr. Israel Matthewson Bowen, active members, and Dr. Ashbell Woodward and Dr. Isaac Hays, honorary members.

### POISONING BY PRUSSIC ACID.

DR. W. H. PALMER gave an account of a recent case of poisoning by prussic acid, which presented some unusual features.

The following were elected officers of the Society for the ensuing year:

*For President*—Dr. E. T. Caswell, Providence.

*For First Vice-President*—Dr. George P. Baker, Providence.

*For Second Vice-President*—Dr. Charles O'Leary, Providence.

*For Recording Secretary*—Dr. W. E. Anthony, Providence.

*For Corresponding Secretary*—Dr. E. M. Harris, Providence.

*For Treasurer*—Dr. Charles H. Leonard, Providence.

*For Board of Censors*—Dr. David King, Newport; Dr. Ariel Ballou, Woonsocket; Dr. J. W. Ely, Providence; Dr. J. H. Eldredge, of East Greenwich; Dr. W. O. Brown, Providence; Dr. S. Clapp, of Pawtucket; Dr. Otis Bullock, of Warren; Dr. Lloyd Morton, of Pawtucket.

The officers of the Society were reëlected without exception.

### SPECIMEN OF THE PITCHER PLANT.

DR. JAS. H. ELDREDGE presented a specimen of the pitcher plant, which feeds upon insects, and some discussion followed upon the nature and properties of the plant, Dr. Ballou speaking of its soothing effects in certain cases of small-pox.

### NEW FELLOWS.

No new Fellows were elected, the nominations going over under the rules to the next quarterly meeting.

### LIBRARY COMMITTEE.

The following were elected members of the Library Committee: Dr. T. C. Newell, Dr. O. C. Wiggin, Dr. G. D. Hersey, Dr. W. E. Anthony, Dr. H. S. Miller.

### PROFESSIONAL SECRETS.

DR. S. W. FRANCIS, of Newport, offered a resolution to the effect that the President of the Society be instructed to petition the General Assembly for an act that no physician authorized to practise medicine be compelled to reveal information given him in the confidence of his profession in the courts of the State. The resolution was passed.

### ANNUAL ADDRESS.

The President, Dr. EDWARD T. CASWELL, then delivered the annual address. He commenced by paying a feeling tribute to the memory of the venerable Dr. Arnold, and passed to make some practical suggestions for the conduct of the Society, speaking of the advantage that would result from more attention by individual members to the preparation of papers on subjects of importance and interest to the profession, to be read at the meetings, and suggesting that the day of the annual meeting be changed so as not to coincide with the date of the meeting of the Massachusetts Medical Society. The main subject of the address was devoted to a consideration of

### THE TEMPERANCE QUESTION FROM A MEDICAL POINT OF VIEW.

Leaving the picture of the evils of intemperance in its social aspects to others, he canvassed the uses of alcohol in health and disease. It had long been used, and was by many considered a necessity, the nations who did not use it falling back on other stimulants of a more pernicious nature. A concise and clear description of the effects of alcohol upon the human system was given, showing that it was in no respect food, and added nothing to the vital forces, but diminished the temperature. The suggestion was made that policemen should be instructed in the use of the physician's thermometer, as determining the nature of alcoholic stupor as differing from other stupor, so that there might be no repetition of such incidents as had been known to occur, where a sufferer from apoplexy had been thrown into a drunkard's cell to die. The power and effects of alcohol as a medicine were then elucidated, showing that it could not be omitted from the materials of the physician. Considered in relation to health the question was presented as to whether the moderate use of alcohol was beneficial or not, and there was a very general and thorough array of the latest medical knowledge upon the subject in its physical and mental relations, and the conclusion was reached that, while there were some to whom total abstinence was the only safety, the moderate use of lighter wines, ale, and beer, under proper circumstances, was not injurious, and was often beneficial under the circumstances of modern life. The address concluded with the expression of the opinion that the use of the lighter alcoholic drinks would be conducive to general temperance in the present condition of society. The address was received with marks of hearty applause and approval.

On motion of DR. WINSOR, a commmittee consisting of Drs. Parsons, Eldredge, and Mitchell, was appointed to consider the suggestions in the address of the President.

### GASTRIC ULCER.

DR. WINSOR made a report of a case of gastric ulcer.

On motion of DR. BALLOU, a copy of the President's address was requested for publication, the Doctor expressing his hearty approval of its conclusions.

The Society then adjourned to the Narragansett Hotel for dinner.

## THE MICHIGAN STATE MEDICAL SOCIETY.

*Fourteenth Annual Meeting, held in the City of Detroit, June 11th and 12th, 1879.*

### WEDNESDAY, JUNE 11TH—FIRST DAY—MORNING SESSION.

THE Annual Meeting of the Michigan State Medical Society was held in St. Andrew's Hall, Detroit, beginning on Wednesday, June 11, at 10 A.M., DR. EDWARD COX, of Battle Creek, President, in the chair.

Prayer was offered by REV. R. W. CLARK, after which the

### ADDRESS OF WELCOME

was delivered by DR. WM. BRODIE, of Detroit, who, on behalf of the medical profession and the citizens, gave a cordial greeting to the members of the State Medical Society. After reviewing the commercial interests of the city of Detroit, her financial prosperity, her attractions and her enterprise, Dr. Brodie remarked: "Gentlemen, you have met here in the interests of the noblest of professions. You have met to again greet each other and renew the friendships formed in years gone by. Science is extending her benefits to our race; and the department you represent can claim its position in the foremost ranks. To prolong life, to discover the causes of disease and how to remove them, is and has been your great mission; and when dread pestilence has invaded our land, neither the fear of death nor pecuniary loss has prevented you from being the foremost in the great cause of humanity. It is an honor to be a member of such a profession; and as we meet in this hall, to review the past, to enjoy the present, and prepare for the

future, may we also remember that we, too, are mortal. May we also remember that we are one common brotherhood, laboring together for a common interest —the prolongation of human life.

I need not repeat that you are cordially welcome. Our public institutions will be open to your inspection; and the hospitality of our citizens will be open for your physical enjoyment. In the language of Michigan's motto, we bid you 'circumspice.'"

Dr. Brodie, as Chairman of the Executive Committee, then made announcements regarding the hours for the sessions, and the several invitations extended to the Society.

A recess of ten minutes was then taken to receive proposals for membership. The report of the Standing Committee was presented, and the Society adjourned, to meet at 2 P.M.

### First Day—Afternoon Session.

The Society was called to order, at 2 P.M., by the President.

#### NEW MEMBERS.

After the calling of the roll the following gentlemen were duly elected to membership in the Society: Electus B. Ward, Detroit; Morse Stewart, Jr., Detroit; A. M. Haight, Albion; J. Miller, Mount Pleasant; L. S. Griswold, Sand Lake; A. L. Worden, Ann Arbor; C. M. Woodward, Tecumseh; Thos. Addison, Rockford; S. H. Hagadorn, Bay City; A. W. Ricker, Fenton; Samuel S. Stephenson, Detroit; L. D. Knowles, Kendall; F. P. Kenyon, Montague; A. M. Hawes, Detroit; F. J. Jackson, Lapeer; C. W. Hubbard, Davisburg; J. W. Robertson, Detroit; Victor C. Vaughan, Ann Arbor; C. P. Felshan, Ypsilanti; R. W. Odell, Ypsilanti; C. W. Morse, Dowagiac; Eli Woodman, Farmington; C. J. Lundy, Detroit; Charles S. Sheldon, Greenville; M. K. Ross, Detroit.

#### PRESIDENT'S ADDRESS.

Dr. Cox then delivered the annual address, selecting for his subject

#### CRIMINAL ABORTION.

It was an exhaustive discourse upon the evils and results of the practice of abortion, and a review of the various means suggested for doing away with the great evil. He believed that the church, the press, and the medical profession should unite in educating the people to thoroughly understand the causes and sinful results of this most cowardly crime, and to make known the fact that it could no longer be committed with impunity. The address was well received, and was referred to a special committee.

Reading of papers being next in order

Dr. E. P. Christian, of Wyandotte, read a paper entitled

#### SHORTNESS OF THE UMBILICAL CORD A CAUSE OF RETARDED LABOR AND ACCIDENT.

The paper was referred to the Committee on Publication.

#### HODGKIN'S DISEASE.

Dr. Geo. K. Johnson, of Grand Rapids, read a comprehensive paper on the above subject, and gave a detailed history accompanied with photographic illustrations of two cases.

The paper was referred to the Committee on Publication, and the Society adjourned to the steamer Gazelle, which took the members and invited guests to several points of interest on the Detroit River.

#### EVENING SESSION.

In the evening the Executive Committee gave the Society a reception at the residence of Dr. Wm. Brodie, whose hospitality and happy faculty of making guests feel as though at home are well understood both by the profession and the public.

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### Thursday, June 12th.—Second Day.—Morning Session.

The Society met at 10 A.M., and was called to order by the President.

#### REPORT OF COMMITTEE ON ADMISSIONS.

The Committee on Admissions recommended the following gentlemen for membership: Drs. L. S. Stevens, Albert P. Prescott, L. W. Bliss, J. Vohan, James H. Stowell, E. C. Adams, A. H. Green, A. J. Hope, Judson Bradley, G. W. Church, A. W. Nichols, J. W. Elliot, J. G. Millspaugh, and G. W. Montgomery. The report was accepted and adopted.

Dr. G. E. Ranney, the Secretary, announced a charge by Dr. Eugene Smith, in respect to the sign business, against a member of the Society, which was referred to the Judicial Council.

#### REPORT OF COMMITTEE ON NECROLOGY.

Dr. Wm. F. Breakey, of Ann Arbor, read the report of the Committee on Necrology. He was happy to report only few deaths; but the members lost had been valued ones. Drs. J. H. Beach, of Coldwater; Dwight Nimms, of Jackson; Z. E. Bliss, of Grand Rapids; and Nathan Mitchell, of Colon, were reported as having died, and appropriate resolutions from the local societies were appended to the notice of decease. The report was adopted and ordered published.

#### TREASURER'S REPORT.

The report of the Finance Committee was read by Dr. Pratt, of Kalamazoo. The balance in the treasury was $181.12. The report was accepted and adopted.

A paper on *Hour-Glass Contraction of the Uterus*, prepared by Dr. J. S. Calkins, of Thornville, was read by Dr. Hugh McCall, of Lapeer.

The paper was discussed by Dr. J. H. Bennet, of Coldwater, and referred to the Committee on Publication.

Dr. Donald McLean, of Michigan University, read a paper on

#### CLINICAL NOTES ON OVARIOTOMY.

It was listened to with great attention and contained his experience in several cases.

The paper was discussed by Dr. A. W. Alvord, of Clinton, and referred to the Committee on Publication.

#### Wells *vs.* Beebe, of Howell.

The committee to whom was referred the charges preferred by Dr. C. V. Beebe, of Howell, against Dr. Wm. L. Wells, of the same place, reported as follows: We find that the Livingston County Medical Society, after a full examination, exonerated the said Dr. Wells from all the charges and specifications. While we find that there might have been some irregularities in the use of a certain cancer powder, we think it was made a reason for a professional and personal quarrel between the parties, which, in our opinion, is reprehensible, and should be discontinued. And in consideration of the fact that Dr. Wells has discontinued the irregular practice, made known the formula—the valuable formula—(which he was to

hold till death), we recommend that he be admitted to membership of this society. The "valuable formula" was a little arsenic.

The recommendation was supported.

DR FOSTER PRATT, of Kalamazoo, moved the reference of the recommendation to the Judicial Council.

DR. A. B. PALMER, of Michigan University, said it seemed to him the precedent had been already established of not going behind the returns of a local society. He therefore thought Dr. Wells should be admitted.

DR. PRATT said he did not consider that, because a local society had admitted a member, the State society should do so necessarily. The Judicial Committee room was the place for all discussions of a personal nature. "We have erected a tomb of the Capulets, in which all those things can be consigned to oblivion, except so far as it chooses to give up in part what is committed to its trust." He read a section of the constitution of the Society, as follows:

"All questions of a personal character, including complaints and protests, all questions on credentials, shall be referred at once, after the report of the Committee on Admissions or other presentations, to the Judicial Council, and without discussion."

THE CHAIR—This will be so referred without discussion.

A paper written by DR. H. O. HITCHCOCK, of Kalamazoo, was then read for him by Dr. Dunster. It was entitled, "*A Case of Fracture of the Acetabulum, with Dislocation of the Femur; Reduction and Subsequent Redislocation caused by Improper Removal of the Patient; Final Reduction after Six Weeks. The History of a Suit for Alleged Malpractice; Review of the Testimony in the Case; Decision of the Supreme Court, and Final Result of the Case.*"

This paper gave rise to a lively debate, participated in by Drs. E. W. Jenks, Hitchcock, Carstens, H. O. Walker, Brodie, and Palmer, during which questions of privilege were asked, protests and appeals from the decision of the Chair made, and motions of reference offered. The debate terminated by a continuance of the reading of the paper. The reading was again interrupted at 12.30 by a motion to adjourn, and the Society adjourned to meet at 2 P.M.

### SECOND DAY—AFTERNOON SESSION.

The Society was called to order at 2 P.M. by the President, and the following candidates elected to membership in the Society: Dr. Wm. Zimmerman, and Mrs. Dr. F. A. Tenny.

### NOMINATING COMMITTEE.

On motion of DR. BRODIE, of Detroit, a Committee on Nominations was appointed, consisting of Drs. J. H. Jerome, of Saginaw City, A. F. Kinnie, of Ypsilanti, H. B. Shank, of Lansing, Peter Klein, of Detroit, and E. Twiss, of Athens, to nominate all officers of the Society, except the President and members of the Judicial Council.

The Society then proceeded to ballot for President, and DR. GEORGE K. JOHNSON, of Grand Rapids, was elected.

### COMMITTEE ON THE PRESIDENT'S ADDRESS.

The special committee to whom was referred the President's address on the subject of "Criminal Abortion" consisted of Drs. Foster Pratt, of Kalamazoo, Charles Shephard, of Grand Rapids, S. S. French, of Battle Creek, E. P. Christian, of Wyandotte, and I. E. Brown, of Monroe.

### JUDICIAL COUNCIL.

By ballot, Drs. Wm. Brodie, and J. A. Brown, of Detroit, and J. H. Bennett, of Coldwater.

Dr. Foster Pratt, of Kalamazoo, was elected a member of Judicial Council, to fill vacancy caused by the election of Dr. Johnson to the presidency of the Society.

Dr. H. B. Shank, of Lansing, was elected to fill the vacancy caused by the death of Dr Nims.

### HONORARIUM TO THE SECRETARY.

On motion, one hundred dollars was voted to the Secretary, with the thanks of the Society.

### REPORT OF THE COMMITTEE ON NOMINATIONS.

The Committee on Nominations reported as follows:

*For First Vice-President*—Dr. J. T. Thomas, of Bay City.

*For Second Vice-President*—Dr. H. B. Shank, of Lansing.

*For Third Vice-President*—Dr. W. F. Breakey, of Ann Arbor.

*For Fourth Vice-President*—Dr. E. S. Snow, of Dearborn.

*For Treasurer*—Dr. Geo. W. Topping, of De Witt.

The report was accepted.

DR. SHANK moved to amend by substituting for his own, the name of Dr. D. O. Farrand, of Detroit. Carried.

The report was then adopted.

DR. BRODIE moved that the regular order be proceeded with.

DR. JEROME moved that the further reading of the paper of Dr. Hitchcock be dispensed with. Lost.

DR. JEROME moved that those who have papers here have leave to file them with the Publishing Committee. Carried.

DR McLEAN moved that the Society have an evening session. Lost.

### DR. HITCHCOCK'S PAPER AGAIN.

DR. DUNSTER then proceeded with the reading of the paper of Dr. Hitchcock, reading extracts from the testimony in the famous case of Burgett *vs.* Stillwell impleaded with Hitchcock, the suit in question. The paper also quoted the decision of the Supreme Court on the trial, which reversed the judgment of the court below, and the subsequent dismissal of the case in the Circuit Court.

Considerable discussion ensued regarding the disposition to be made of Dr. Hitchcock's paper.

DR. HITCHCOCK finally asked leave to withdraw his paper from the Society, and his request was granted.

### THE METRIC SYSTEM.

DR. DE WITT C. WADE, of Holly, presented a communication on the metric system of weights and measures, which was tabled until next year.

On motion by DR. BRODIE the unread papers were referred to the Committee on Publication.

On motion by Dr. Brodie, the thanks of the Society were tendered to the President, for the able manner in which he had presided over the Society during the past year and at the present meeting.

THE PRESIDENT appropriately responded.

On motion of DR. FOSTER PRATT, of Kalamazoo, the Society adjourned to meet in Grand Rapids, at 10 A.M, on the second Wednesday of May, 1880.

## NEW YORK NEUROLOGICAL SOCIETY.

*Stated Meeting, June* 2, 1879.

DR. J. C. SHAW, PRESIDENT, IN THE CHAIR.

### FUNCTIONAL NERVOUS DERANGEMENTS SIMULATING STRUCTURAL DISEASE OF THE HEART, AND THE VALUE OF ELECTRICITY IN THEIR TREATMENT.

DR. A. D. ROCKWELL read a paper upon the above subject, of which the following is an abstract: If it was true, many to-day unconscious of danger to-morrow succumbed from organic heart disease, it was equally true that others were living a life of terrible expectancy, because of a fixed but unfounded suspicion of structural disease or decay. To illustrate that statement Dr. Rockwell referred to a case in which there was but a faint suspicion of any cardiac disturbance, although death occurred from dilatation and rupture of the right auricle; also to one in which the patient, ten years ago, was told by a distinguished auscultator that his life would be prolonged for only one or two years, but who was suffering from a nervous affection, and was not the victim of either well-marked or serious organic cardiac lesion. Correct diagnosis, therefore, in cases of suspected heart disease was of the greatest importance, and fortunately, as a rule, there was no very great difficulty in arriving at correct conclusions. Valvular disease, hypertrophy, and dilatation, with ordinary care could be detected, but with reference to fatty degeneration as much could not be said. Further on, however, the latter condition became so well defined that in most cases a probably correct diagnosis was usually readily reached. If the first sound was short and faint, its action slow and irregular, and, as associated symptoms, there were præcordial oppression with palpitation after undue exertion, a tendency to pallor and syncope, and inability to rest with the head quite low, it was quite probable that fatty degeneration was present, especially if dilatation existed without evidence of valvular lesion. Yet he had been led to believe that nearly all those symptoms might be present without the presence of structural decay. Every grade of cardiac disturbance followed long courses of dissipation, notably those of a sexual character. Cardiac disturbance was also very liable to occur during the sexual formative stage in young women. In a case related, the patient frequently suffered from what to her was alarming, namely, a feeling as if the heart suddenly ceased beating, and yet it was certain that she had no valvular lesion, and at her age (eighteen) fatty degeneration could hardly be allowed. The point impressed was that in not a few instances of disordered action of the heart, of a sufficiently persistent and distinctive character, not only to suggest, but to render highly probable the existence of structural derangement, the whole array of symptoms might be simply a sequence of physical and mental abuse by which the nervous system had been exhausted, while the heart was structurally sound. Rest, time, and treatment were the only means by which we could be certain of the existence or non-existence of decay. In that connection the history of two cases was given, which illustrated the remarkable sameness of the symptoms that resulted from organic heart disease and simple functional nervous derangement.

CASE I.—Mr. C., æt. 28, led a course of dissipation for several years, apparently without injurious results. At the age of twenty he began to be conscious of palpitation of the heart subsequent to excesses. Prudence with alleviation of symptoms, and dissipation with return of symptoms alternated until twenty-four, when he suddenly suffered from syncope, which, with varying degrees of severity, was subsequently repeated. He also coincidently suffered from disturbance of vision, falls without loss of consciousness, and violent tremors. His condition remained nearly stationary for three years, when the attacks became more frequent, occurred every week, and he was soon rendered helpless. The rhythm of the heart was somewhat disturbed, but there was no evidence of serious structural disease. To the tonic effects of general faradization the patient had not been subjected, and that plan of treatment was begun by Dr. Rockwell in October, 1878. The patient had steadily improved from that time, and although not entirely relieved of all symptoms, he was able to attend to his business steadily. The first effect of the treatment was to diminish the frequency of the syncopal attacks, lessen the pain in the præcordial region, decrease the disturbance of rhythmical action, and to increase the strength of the pulse.

CASE 2.—Mr. D., æt. 47, after several months of unusual mental exertion, became conscious of acceleration of the heart's action and a sensation of breathlessness after slight exertion, especially that made in ascending stairs. He suffered from insomnia, and was especially uncomfortable except his head was well raised in bed. After a time those symptoms became associated with a general neurasthenic condition, loss of appetite, and nausea. The first sound of the heart was so faint and abrupt as to be hardly perceptible. The patient firmly believed that he was suffering from incurable organic disease of the heart. Under rest, and the use of digitalis and bromide of potassium, there was an appreciable, though not a very decided change for the better. Eleven months after he first came under Dr. Rockwell's care he performed some work in way of balancing business accounts, and, immediately following a short walk exposed to the sun's rays, he fell to the floor unconscious. Subsequent to that attack he experienced a disagreeable sensation in the præcordial region, with shooting pains down the left arm, and recurring with tolerable regularity every evening. His pulse rarely arose above fifty-five. Digitalis and quinine were prescribed, and general faradization administered. At the end of the first sitting, fifteen minutes, the pulse had risen seven beats. A decided feeling of invigoration followed, and a more restful night than had been experienced for months. The faradization was repeated every other day. The heart's action became more regular and frequent, the pains down the left arm disappeared, and, at the present time, he was entirely recovered.

With reference to the value of electricity to give tone and strength to the nervous system, Dr. Rockwell remarked there was but little difference of opinion among those who had had any adequate experience in its use. In thus speaking of it he did not refer to its local use alone, but to thorough, systematic, and carefully graduated applications to the whole body. It had been termed a grape-shot method of procedure, but it was such in no greater measure than the administration of any internal medicine which performed its function through its action on the whole nervous and circulatory system, or the act of sea-bathing, or the action of sunlight. Neither local nor general applications of electricity exerted a very marked influence upon the normal pulse, but in those conditions of nervous derangement in which it was so rapid, and in others in which it was so slow, the effect of general faradization was

very great. He had succeeded in reducing a pulse of 150 or 160 by 40 or 50 beats to the minute within a very short time. Even in cases in which the irritability of the heart had been supposed to be of a reflex character, that result had been obtained. He had not in such and analogous cases been able to produce results as satisfactory with the galvanic current or with local applications.

Dr. Rockwell closed his paper with the following brief statement of what much observation had taught with reference to general faradization:

In *health*, the first, and, as a rule, the only effect following an application of general faradization, was one of invigoration, which, in the course of a few hours, more or less, subsided.

In *pathological conditions*, however, five groups of effects had been most frequently observed:

*First*, and perhaps most frequently—providing always that the applications were not too strong, were carefully graduated, and in all respects given judiciously—the treatment was followed, as in health, by a feeling of invigoration alone.

*Second.* Invigoration might be followed by depression, and that again by invigoration.

*Third.* The immediate result of the application might be depression with subsequent invigoration.

*Fourth.* No immediate effect might follow, but in a short time depression was experienced, succeeded in a few hours or on the day following by invigoration.

*Fifth.* Depression might immediately follow, succeeded by no feeling of invigoration.

In the latter cases the treatment should be discontinued. Such cases, however, were rare.

The special effects of general faradization varied even more than did the general effects.

### WIND SPASM.

Dr. Wm. J. Morton presented a patient, who for several years had suffered from sudden attacks of great distress, both mental and physical, and with apprehensions of impending evil, attended by eructations of immense quantities of wind. The seizures lasted from one-half to one or two hours, during which time gallons of air, apparently, were expelled, and the patient was greatly distressed and showed an anxious expression of countenance. The attacks were liable to be developed by any form of excitement. None of the members had seen a case exactly like it. Nothing in way of treatment had afforded any benefit.

### HEPATIC ABSCESS.

Dr. Wm. A. Hammond reported a case of hepatic abscess which he had operated upon April 21, 1879, evacuating about ℥ viij. of pus. Dr. Morton administered the anæsthetic. The patient had been hypochondriacal, in fact, almost insane. He had been in a private institution for treatment of mental disturbances, and had been affected in that manner four years. It was only recently that the doctor suspected any trouble with the liver. On the 21st of April he made a puncture between the 9th and 10th ribs to the depth of an inch and a half, and obtained odorless pus, which, upon microscopical examination, gave no evidence of the presence of hepatic tissue, and there was no evidence that it contained bile. The most troublesome feature in the case was the tendency to repeat, over and over, the same thing in the mind. For example, if he heard some phrase, he was unable to stop repeating it, and it would "run in his head" the same as a tune. He also had a constant impulse to blaspheme, which gave him great annoyance and mental anxiety, because he was a religious man. Since the operation all that mental disturbance had disappeared; he had gained in weight fifteen pounds, and had slept well. There were no external physical signs of abscess, but there was a slight tenderness upon pressure.

The theory entertained by Dr. Hammond was that the brain disorder induced the liver trouble, and not contrarywise, as was more commonly supposed.

Dr. A. D. Rockwell related the following case:

In May, 1878, a boy, aged ten, who was recovering from an attack of scarlet fever, was subjected to a severe and sudden fright by the excitement and confusion attendant on the accidental ignition of the curtains of the room in which he was convalescing.

The following night he suffered from several convulsive seizures, by which he was much exhausted, and shortly after choreiform disturbances became manifest.

The head was violently drawn from side to side through clonic contractions of the sterno-cleido-mastoid muscles, and at the same time there was distortion of the mouth, with much frothing. In September, nearly five months subsequently, the patient fell under his observation, suffering from symptoms substantially the same as described. He was subjected to electrical treatment, mainly by the method of central galvanization, and in a few weeks had approximately recovered, and treatment was abandoned. In November the patient returned with symptoms as aggravated as before. The same treatment, and in addition, general faradization, was again attempted. Partial recovery followed in due course, but for unavoidable reasons the patient abruptly abandoned treatment a second time.

About the middle of December the patient again presented himself, with the clonic movements as fully pronounced as ever. The same method of electrization was used as before, together with hypodermic injections of eserine, the active principle of physostigma, or calabar-bean. The amount injected on each occasion was $\frac{1}{30}$ of a grain, and Dr. Rockwell was led to give it a trial because of favorable reports that he had seen. The patient gradually recovered, but with no greater rapidity than on the two former occasions, and with the difference, that since the last result there had been no relapse. It had been his experience, and he believed of most practitioners, that the general tendency of chorea was toward recovery, and it was that fact that was the cause of such a surprising lack of unanimity concerning its treatment. When taken in hand immediately, it was by no means possible in every case to decide whether the recovery that followed was due to the remedy employed, or to time and care alone. If, however, the symptoms continued without abatement for two or three months, they were often exceedingly intractable to treatment, and should recovery result in a reasonable length of time after the adoption of any special method, it was fair to attribute it to the treatment employed. In chronic cases he had been led, through some considerable experience, to regard electricity in some form as a most efficacious remedy; but in the case just related, which in its details seemed to him to be somewhat unique, it would certainly appear as if the injections of eserine very effectively supplemented the electrical treatment.

The Committee on the subject of Insane Asylum Abuses then made a provisional report, after which the Society adjourned.

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The Plumber and Sanitary Engineer has been enlarged, and changed from a monthly to a semi-monthly journal. The change indicates prosperity.

# Correspondence.

## NATIONAL BOARD OF HEALTH AND HOMŒOPATHY.

To the Editor of The Medical Record.

Sir:—In answer to "X," in your edition of April 26th, allow me to say, Dr. Verdi *is* the same homœopath whose appointment some years ago, as a member of the Washington Board of Health, caused such an excitement in the local Medical Society. "X" seems to be offended that the President should have appointed this Dr. Verdi a member of the National Board of Health, and insinuates disciplining the other members of the Board should they sit with him, and that the American Medical Association should, at its approaching session, take notice of it, which means, of course, that the Association should show its displeasure in some active manner. Let us look at this matter square in the face, without prejudice, for this is not the age of bigotry.

This Board of Health is a *National* Board of Health, as its name implies,—not an Allopathic, Eclectic, Hydropathic, Thomsonian, nor Homœopathic Board of Health. The act of Congress constituting this board does not state that its members shall all be physicians, and, in fact, one of its members, Samuel F. Phillips, Esq., is not a physician. Neither does it stipulate the medical practice that each member shall employ. How does brother "X" know but what Mr. Phillips is a homœopath. This Board was not organized to carry out any one idea of medical practice, but as a Sanitary Board, and the appointment of members was made from among those known as sanitarians, and those well fitted for the positions. Dr. Verdi is a well-known sanitarian, whatever therapeutic law in the administration of medicine he may have adopted.

The spirit which is being manifested in some sections of the country against homœopaths is not the spirit of the age, and I am glad to say, for the credit of the medical profession, that that spirit is gradually hiding its head. We cannot help acknowledging that *very* many of the homœopathic physicians are educated men, having been educated in both schools, graduating side by side with us, some of them taking prizes at our colleges, and yet, because they may choose to administer their remedies according to the law "Similia" instead of the law "Contraria," we immediately ostracise them from all social and professional privileges, as far as lies in our power. Their practice is no more "based upon an exclusive dogma" than ours; their educated men do not reject "the accumulated experience of the profession" any more than we do, in fact they search further than we do; their "anatomy, physiology, pathology, and organic chemistry" are the same as ours; they use the same palliatives that we do; the only point upon which we differ is in the administration of remedies. If the truth was known, many of our own school carry their small pocket-case of tinctures, and administer their remedies according to the homœopathic law, but are not honest enough to acknowledge it.

I have much more respect for the man who practises openly what he thinks is best, without fear of the American Medical Association, or any other Associaciations, than for him who practises one thing and preaches the other. The medical profession is a liberal and charitable profession, and the physician who stands upon any other ground than this is a bigot, and in this age bigotry will never thrive.

I hope to see the day when the bitterness now existing (the same as existed between religious sects fifty years ago) will be wiped out; when the physicians of both schools will meet together, and consult together, and the best known remedial measures in both schools be used mutually for the benefit of mankind. B.

Richmond, Va., June 1, 1879.

## UNION MEDICAL SOCIETY—REPORT OF CASES.

To the Editor of The Medical Record.

Dear Sir:—At the last quarterly meeting of the Union Medical Society of Washington, Warren, and Saratoga counties, held at Sandy Hill, May 20th, Dr. A. B. Burger, of Gansevoort, reported a post-mortem held by himself in company with Dr. B. J. Murray, of Wilton, which disclosed an unusual condition of the pelvic viscera. A fibroid tumor was found anterior to the bladder, and an abscess as large as a goose-egg posterior to that organ. The walls of the bladder were thickened, and adherent to the pelvic walls. There had been progressive atony of the bladder and some tenderness over the pubic region. The tumor had been diagnosticated before death, but the other abnormal conditions were unlooked for.

Dr. Adamson, of Lake George, reported an extraordinary case of childbirth which had occurred in his practice. Labor came on at seven months, and the entire contents of the uterus, weighing five and a quarter pounds, were expelled in a single mass, with unruptured membranes.

Dr. Gibbs read a report, furnished by Dr. Sarah J. Finch, of Fort Ann, of a case of cancer involving the external meatus of the urethra, in which the patient showed a remarkable tolerance of morphia, given hypodermically. The report stated that the solution had been administered in this manner more than 1,500 times within fourteen months. No abscesses of phlegmon had resulted, except in one instance. A case of chronic softening of the spinal cord, illustrating in a more marked degree even the tolerance of the system of hypodermic injections of morphia, was reported by the secretary. In this case, the needle had been used from six to twelve times daily for six months, and no abscess or sore of any kind had ever resulted from the puncture.

James S. Cooley, M.D.,
*Sec. Union Medical Society.*

Sandy Hill, N. Y., May 21, 1879.

## ELECTRICITY AND EXUDATION OF MERCURY FROM THE SKIN.

To the Editor of The Medical Record.

Dear Sir:—Mr. J. called at my office Wednesday morning, April 23d, complaining of nervous exhaustion. I recommended electricity and applied the galvanic current. I was astonished after the sitting, to find a couple of fine globules of mercury exuding from the pores of the skin on the back of the hand in which he held the positive electrode. I repeated the application of electricity, and another fine globule came from a point adjacent. Other applications gave no mercury.

The patient tells me that three days previous to this he had taken, upon retiring to bed, hydrarg. pil., gr. viij., thinking that his liver was torpid. This was followed by a seidlitz powder the next morning; a satisfactory passage from the bowels being the result.

He tells me, moreover, that he has not been under mercurial treatment, and has not had the metal about him in any form, with the exception of the above instance, in months.

The only source, therefore, we can refer it to, is the hydrarg. pil., absorption having taken place.

The case is an interesting one from the fact that it shows what may be the result of allowing mercury to remain undisturbed in the bowels so long, when cathartic action and not absorption is desired, and also that electricity may prove a means of aiding the elimination of the metal from the system, when such action is desired.

There was no tendency to ptyalism in this case.

H. A. FAIRBAIRN, M.D.
BROOKLYN, 289 MCDONOUGH STREET.

## ARMY NEWS.

*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 15 to June 21, 1879.*

WOLVERTON, W. D., Major and Surgeon. Granted leave of absence for four months. S. O. 140, A. G. O., June 18, 1879.

DE HANNE, J. V., Capt. and Asst. Surgeon. Fort Concho, Tex. Granted leave of absence for one month on Surgeon's certificate of disability, with permission to leave the Dept. S. O. 123, Dept. of Texas, June 12, 1879.

HALL, J. D., Capt. and Asst. Surgeon. Relieved from assignment to duty at Fort Griffin, Tex. (S. O. 83, C. S.), and assigned to duty as Post Surgeon at Fort Concho, Tex. S. O. 121, Dept. of Texas, June 10, 1879.

HAVARD, V., 1st Lieut. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Johnston, N. C., relieving Asst. Surgeon, B. G. Semig, who will comply with S. O. 114, C. S., A. G. O. S. O. 95, Dept. of the South, June 16, 1879.

WILCOX, T. E., 1st Lieut. and Asst. Surgeon. Assigned to duty as Post Surgeon, Boise B'ks, Idaho Ty., relieving Asst. Surgeon Wm. R. Hall. S. O. 64, Dept. of the Columbia, June 5, 1879.

HALL WM. R., 1st Lieut. and Asst. Surgeon. When relieved, to report to Major John Greene, 1st Cav'y, commanding troops in the field at Camp Winfield Scott, Kittitas Valley, W. T. S. O. 64, C. S., Dept. of the Columbia.

YEOMANS, A. A., Capt. and Asst. Surgeon. Having been found by an Army Retiring Board incapacitated for active service, granted leave of absence until further orders, on account of disability. S. O. 141, A. G. O., June 14, 1879.

POISONING BY CARBOLIC ACID EMPLOYED BY INTRAUTERINE INJECTIONS.—After the removal of a fibrous tumor of the cervix, Dr. Rheinstadter employed intrauterine injections of a ten per cent. solution of carbolic acid. One day he noticed that only a small portion of the solution escaped, and the patient suddenly fell back unconscious. The face was pale and covered with sweat; the extremities were seized with tonic convulsions; the respiration ceased for a time, and then became slow and superficial; the pulse could scarcely be counted; and the abdomen became distended. Death seemed imminent, and the body was already cold. A subcutaneous injection of tincture of musk and ether was administered, and the pulse at once improved. At the end of four hours the patient regained consciousness. The accident was not followed by general peritonitis.—*Lyon Médical.*

# Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending June 21, 1879.

| Week Ending | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Cerebro-spinal Meningitis. | Measles. | Diphtheria. | Small-pox. | Yellow Fever. |
|---|---|---|---|---|---|---|---|---|
| June 14, 1879. | 0 | 11 | 114 | 2 | 65 | 24 | 12 | 0 |
| June 21, 1879. | 0 | 4 | 103 | 2 | 40 | 28 | 1 | 0 |

MEMORIAL TABLET.—At the last session of the N. Y. State Medical Society, the undersigned were appointed a committee to obtain the names of those members of our profession in this State who have lost their lives from being killed or wounded in battle, and of those who died in consequence of volunteering to render professional service during the prevalence of an epidemic or any deadly disease, or in consequence of exposing themselves through devotion to the pursuit of scientific investigations for the advancement of the science of our profession.

The list, when obtained, is to be published annually in the proceedings of the Society, in a separate roll.

Please give a short sketch of any physicians in your county who come under above description, with the date and occasion of their deaths, addressed to the chairman of the committee, Dr. Theodore Dimon, Auburn, N. Y., at as early a time as convenient, and oblige,

Yours respectfully,

Committee. { THEO. DIMON, M.D. / H. D. DIDAMA, M.D. / WM. MANLIUS SMITH, M.D.

CENTRAL TURKEY COLLEGE.—At Anitab, Turkey, is located Central Turkey College, which hopes soon to have a medical department. In a letter from President T. C. Trowbridge, dated April 30, 1879, we learn that a dispensary was established in 1876, and that work on the foundations for a hospital has been commenced. We hope the college will be successful in obtaining a permanent place for clinical instruction.

ALCOHOL IN PHTHISIS.—Dr. M. L. James recommends the following formula for giving his remedy in disguise:

℞. Syr. cal. lacto-phosph..... f ℥ ij.
Spts. frumenti..... f ℥ viss.
Glycerinæ pur..... f ℥ vj.
Tr. cinchon..... f ℥ iss.
M. Dose: according to indications.

## BOOKS RECEIVED.

ELEMENTS OF MEDICAL CHEMISTRY. By ADOLPH WURTZ, Professor of Chemistry of the Faculty of Medicine of Paris. Translated, from the Fourth French Edition, by Wm. H. Greene, M.D., of Philadelphia. One hundred and thirty-two illustrations. Philadelphia: J. B. Lippincott & Co. London: 16 Southampton St., Covent Garden. 1879.

DISEASES OF THE INTESTINES AND PERITONEUM. By BRISTOWE, WARDELL, BEGBIE, HABERSHON, CURLING, and RANSOM. Wood's Library of Standard Authors. New York: William Wood & Company. 1879.

ATLAS OF HUMAN ANATOMY. Illustrated. By R. J. GODLEE, F.R.C.S. Part 2. Philadelphia: Lindsay & Blakiston. 1878.

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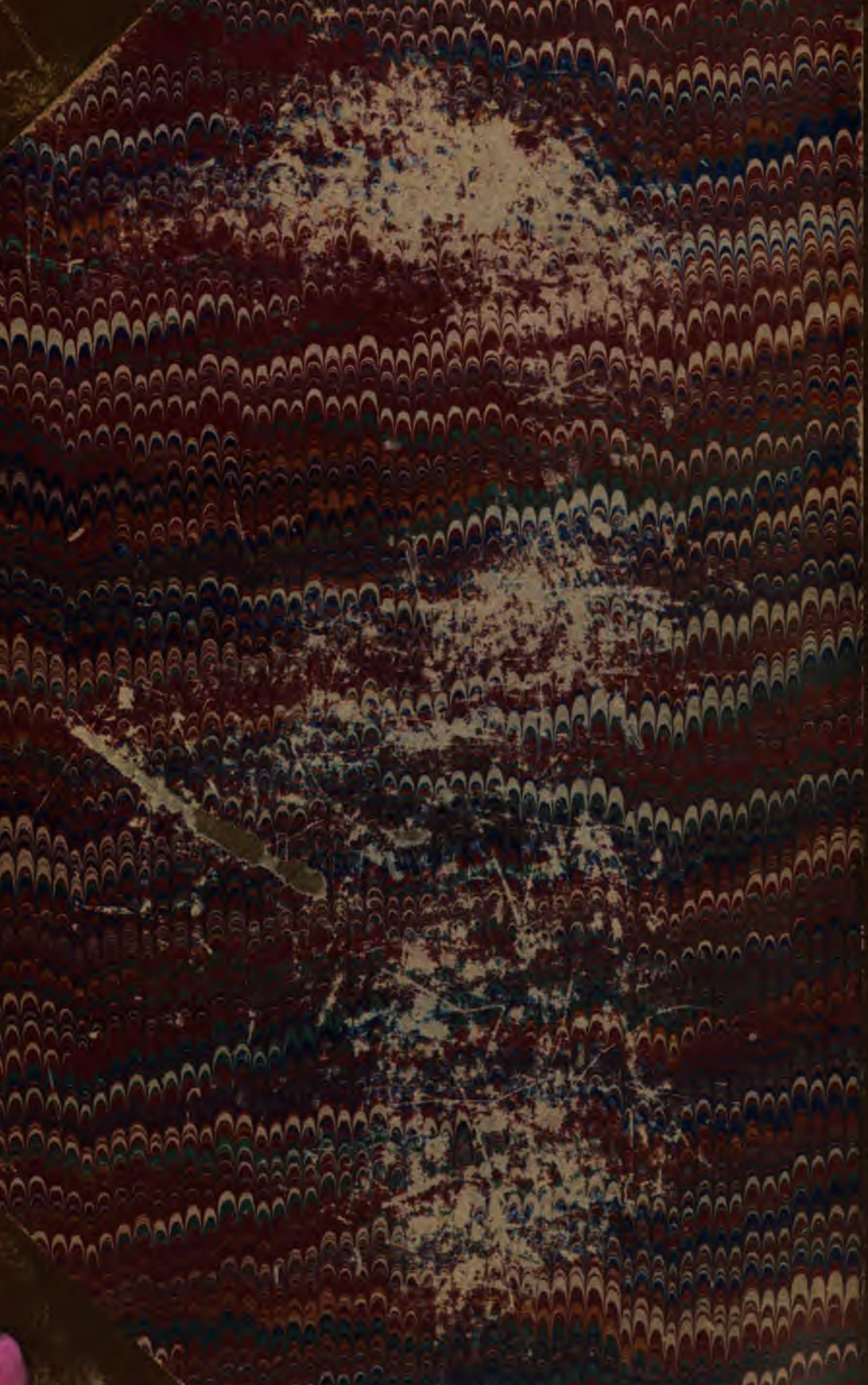
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